CONTRIBUTIONS TO THE STUDY OF YELLOW FEVER,

A PAPER READ BEFORE

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THE AMERICAN PUBLIC HEALTH ASSOCIATION,
NEW YORK, NOVEMBER 12, 1873,

ON THE

NATURAL HISTORY AND DISTRIBUTION
OF
YELLOW FEVER
IN
THE UNITED STATES,

WITH

CHART SHOWING ALL THE LOCALITIES, AND THE ELEVATION OF EACH PLACE ABOVE SEA-LEVEL,
WHERE IT HAS APPEARED,

FROM

A. D. 1668 to A. D. 1874,

BY

J. M. TONER, M. D.

[REPRINTED FROM ANNUAL REPORT SUPERVISING SURGEON U. S.
MARINE-HOSPITAL SERVICE, 1873.]

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THE DISTRIBUTION AND NATURAL HISTORY OF YELLOW FEVER AS IT HAS OCCURRED AT DIFFERENT TIMES IN THE UNITED STATES.

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President of the American Medical Association, Washington, D. C.

The map which accompanies this paper, and which indicates the region where yellow fever has prevailed, either in an epidemic or in a sporadic form since the settlement of our country, is made up from notes taken in the study of the geographical distribution of the diseases of the United States.*

No special opportunities for studying the disease in question are claimed, nor originality in the mode of presenting the facts. Nevertheless, the map is believed to be accurate as far as it goes, if the data derived from past and contemporary medical literature can be relied upon.

Nor is it pretended that this paper is exhaustive, localities not named having, no doubt, been visited by this fever; but we are confident such localities will be found within the region of its general distribution, as here indicated.

The table accompanying this paper, which furnishes mainly the data upon which the map is projected, gives the names of the cities and other localities where yellow fever has occurred in our country from its first settlement, arranged by States in alphabetical order, with the years and dates of its appearance and disappearance.

The elevation of each locality above the sea-level, as far as possible, has been given from reliable sources. In some instances the elevation of a place is assumed from a general knowledge of the altitude of the surrounding country. The errors in these, if any, will be unimportant.

The influence upon localities of elevation above the sea-level, with the exemption from yellow-fever they seem to thence possess, is the view we here wish to call to the attention of sanitarists and of the profession.

We are inclined to give much weight to the theory that diseases have geographical areas and limits, modified somewhat by topographical and climatic conditions, which determine the types of disease as do climate and elevation the fauna and flora of a locality.

The fact has always been patent to the profession, that there are parts of the earth in which particular forms of disease occur, to the almost entire exclusion of others. The study of the causes of this difference is as important as any that can engage the attention of the physician. As a simple factor elevation will, we apprehend, be found to possess qualities both preventive and curative.

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* The map herewith published is projected from a large one, 8 by 10 feet in size, for the execution of which Dr. Toner desires to express his indebtedness to the kindness of the Hon. Willis Drummond, Commissioner of the United States Land Office.—W.

We shall in this paper studiously avoid discussing the questions whether yellow fever is a specific disease or not; whether it is always imported; or whether under certain conditions it may originate within our own country.

Nor do we aim to speak as an expert, never having seen a case of yellow fever, but rather appear as a collator of facts in its history. At the present time the natural history of disease, if we may so use the term in describing the special characteristic distribution of diseases that exist in limited geographical areas, is attracting much attention. There can be no doubt that an accurate knowledge of the climate and other physical peculiarities, and of the prevailing meteorological conditions of a region, will greatly aid the sanitarist and physician in preventing sickness, and in treating successfully the diseases incident to a locality.

The more exact and extended this information becomes, the more definitely can physicians mark out the boundaries and the distribution of diseases over the globe, and suggest measures of relief.

The chief factors usually and most naturally taken into account in the study of the salubrity of a State, or even a city, are latitude, longitude, the extremes of heat and cold and mean annual temperature, the prevailing direction of the winds, the general humidity of the air, and the annual precipitation, drainage, etc.

These undoubtedly furnish most valuable information, but there is another important element, that of elevation, which has the power to intensify or counteract the influence of most of them.

The most insalubrious regions are, confessedly, the savannas and tide-water lands of the tropic and temperate zones. The impression is quite general that persons of the same nationality, living on mountains or high table-lands are more rugged and healthy, as a general rule, than their friends engaged in similar occupations on the low lands in the same latitude.

The accompanying map enables us, in a comprehensive way, to consider the question whether elevation has presented any barrier to the progress of yellow fever in the United States, by bringing all localities where it has prevailed, with their altitudes, before the eye at one time.

The fact will be patent to any one that the low lands of the Gulf States and the Atlantic coast, with the water-courses emptying into them, are the regions of its most frequent visitations in the United States.

The conceded home of yellow fever is in the West Indies and the Bahamas, with a portion of the adjacent continents of North and South America. A square formed by the forty-fifth and the one hundredth degrees of longitude, and the thirty-fifth north and the fifth south latitude, will include the favorite region of this disease.

Although originating within the square named, history shows that it may prevail on the sea-coast in any locality within the tropics, north and south of the equator, where malarial fevers prevail, and the daily average of the thermometer is over 75° or 80° with a high dew-point for weeks or months together.

If these latter conditions, however, were the only ones necessary to the development of this disease, it should prevail much more widely; for they exist, during parts of the summer at least, in almost all of our Atlantic cities, as may be seen by reference to the record of temperature shown by the admirable isothermal maps in Lorin Blodgett's *Climatology*.

There are, no doubt, other climatic conditions essential to its origin, if not to its propagation and spread. Once the disease has become epidemic in a place, it can exist at a much lower average daily range of the thermometer than seems to be required for its development.

It is, however, always controlled in its severity and checked in its spread, or entirely arrested by storms, heavy rains, and, most effectually, by frost. This has been exemplified by the polar waves, or "northers," that occasionally blow from the Arctic regions down over Texas, and by long-continued rains.

Yellow fever does not prevail in the East Indies nor in China. It has appeared in most of the maritime cities of the United States on the Atlantic coast, as far north as Boston, and indeed has been chronicled at Quebec and Halifax. But while it is true that it has thus visited many of the cities and towns on the sea-coast, it has, fortunately, never extended far into the interior of our country.

In the United States, it seems to prevail in the large sea-ports and in localities along the navigable water-courses having their outlet in the Gulf of Mexico. Dr. Drake, many years ago, observed that while the disease had appeared at almost every town on the Mississippi, as far up as Vicksburg, that Woodville, twelve miles from the river, was the most remote inland point it had reached. During the late epidemic at Shreveport, a number of deaths occurred, according to the report of the Howard Association, at points outside the city limits—distances from the city not given. The places named are Caddo Parish, Marshall, Greenwood, and Summer Grove.

The same accurate observer (Dr. Drake,) remarks that yellow fever is eminently a disease of cities rather than of rural districts, and of villages rather than of scattered country dwellings. It has been shown that towns of small population are less liable to suffer than larger ones, and the same town within the yellow-fever zone, as its population increases, is more likely to suffer than when its population was less. Hence density of population, or proximity of numerous individuals approaching to crowding, is believed to be a factor of no small influence in the propagation and spread of the disease.

Its appearance in a locality is generally coincident with bilious intermittents, and the first cases are said always to occur near the water in the lowest and most insalubrious places.

It has been observed that its epidemical limits coincide with the range of the growth of the live-oak, the cypress, and the long mosses. Certainly the regions of our country most frequented by this disease are particularly low and flat, with numerous rivers and much marsh and swamp lands, as may be inferred from the localities and their elevations marked on the map. These low lands are to a considerable extent covered with the cypress, long-leaved pine, and other indigenous trees, with thick undergrowth when in an unredeemed or natural state. The northern limit of the growth of the cypress is not much north of Norfolk.

Yellow fever has been considered by nearly all writers a distinct disease from the autumnal remittent fevers of the temperate zone. All agree that it is indigenous at Vera Cruz on the Gulf of Mexico. When we examine into the climatic conditions of this locality, nothing special or satisfactory as an explanation of the peculiarities and origin of the disease has been discovered.

Protracted average high temperature is a constant factor there, but this of itself is deemed insufficient. The time has, perhaps, not come, if it ever does, for the discovery of all the elements entering into its development.

No doubt there are numerous undiscovered factors and conditions, essential to its existence and present in varying intensity, in different years, and which greatly add to its rapid spread and virulence. The mortality from the disease at the same place is much greater in some seasons when the conditions of heat and moisture are apparently the same. Again, extreme heat and dryness stop the epidemic, as do heavy and protracted rains.

As we have already stated, the conditions of long-continued heat, averaging over 75° throughout the twenty-four hours, and great humidity exist almost constantly during the summer in the Gulf States. Occasionally during the summer season, for months together, this condition of high temperature, but with less moisture, may exist in many of the coast cities of our country, as far north as Boston, and yet rarely ever are these cities visited by this disease in an epidemic form.

Is the exemption of these more northern coast cities due alone to climatic conditions, or are they in part exempted by sanitary and quarantine regulations? Yellow fever is almost annually reported on vessels at the quarantine stations, where it is fortunately arrested and prevented from entering the cities. In the table of the localities where the disease has prevailed, no distinction has been made between the city proper and the quarantine stations which, in a more careful study, should be made.

The average annual distribution of moisture throughout our country is made manifest by a glance at Chas. A. Schott's Tables and Results of the Precipitation in Rain and Snow, published in 1872 by the Smithsonian Institution, a most valuable contribution to knowledge in this direction. The humidity in the atmosphere is relative to the season, and, as is well known, the absolute humidity is greater in the summer than in the winter, warm air having a greater capacity to contain moisture than cold air, as the following table from Professor Guyot will show. This table expresses, in troy grains, the weight of vapor contained in a cubic foot of saturated air at the stated temperatures of Fahrenheit:

Temperature of air.	Vapor in grains.	Temperature of air.	Vapor in grains.	Temperature of air.	Vapor in grains.
0°	0.545	63°	6.361	80°	10.949
5	0.678	64	6.575	81	11.291
10	0.841	65	6.795	82	11.643
20	1.298	66	7.021	83	12.005
30	1.968	67	7.253	84	12.376
32	2.126	68	7.493	85	12.756
40	2.862	69	7.739	86	13.146
45	3.426	70	7.992	87	13.546
50	4.089	71	8.252	88	13.957
55	4.860	72	8.521	89	14.378
56	5.028	73	8.797	90	14.810
57	5.202	74	9.081	91	15.254
58	5.381	75	9.372	92	15.709
59	5.566	76	9.670	93	16.176
60	5.756	77	9.977	94	16.654
61	5.952	78	10.292	95	17.145
62	6.154	79	10.616	96	17.648

To see how far the conditions of a higher than ordinary average of temperature and a greater degree of humidity may have existed in Memphis and Shreveport during the prevalence of the epidemic of the past summer, we have been enabled, through the courtesy of General Myer, to tabulate the returns, nearly complete, made from Memphis to the United States Signal Bureau for the months of August, September, October, and November, 1872 and 1873. The former year, being healthy at this place, is included for the purpose of contrast. The meteorological tables for Shreveport are compiled from the observations furnished by Dr. J. L. Moore, of Shreveport, the regular observer for the Smithsonian Institution at that point. In addition to the ordinary observations, Dr. Moore gives the daily number of deaths occurring from yellow fever, which, for convenience, is placed in a parallel column on the side of the meteorological table, and on the line of the other daily observations. For Shreveport we are not able to give the observations in 1872 for contrast:

TABLE SHOWING THE METEOROLOGICAL CONDITIONS OBSERVED AT SHREVEPORT, LA., DURING THE YELLOW-FEVER EPIDEMIC OF 1873.

Compiled from the Register of Meteorological Observations under the direction of the Smithsonian Institution, J. L. Moore, M. D., Observer, to which is added the daily Number of Deaths from Yellow Fever.

[SHREVEPORT: County of Caddo, State of Louisiana; latitude, 32° 30′ north; longitude, 93° 45′ west; height above the sea-level, 228.52 feet.]

Day of month.	Thermometer in the open air.				Rain-fall, inches.	Amount of cloudiness.			Winds.*						Barometer reduced to freezing-point.	Relative humidity or fraction of saturation.†			Deaths from yellow fever.
									7 a. m.		2 p. m.		9 p. m.						
	7 a. m.	2 p. m.	9 p. m.	Mean.		7 a. m.	2 p. m.	9 p. m.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Mean.	7 a. m.	2 p. m.	9 p. m.	
Aug. 1	79	88	81	82⅔	....	4-4	1-2	3-4	S. W.	5	S.	5	0	0	30. 111	. 86	. 55	. 83	..
2	80	89	84	84⅓	...	1-4	4-4	0	S. W.	6	0	0	0	0	30. 068	. 82	. 53	. 79	..
3	80	90	85	85	. 01	1-2	3-4	1-4	S. W.	7	N. W.	5	N.	1	30. 083	. 82	. 53	. 79	..
4	80	80	79	79⅔	. 40	3-4	4-4	1-4	E.	6	N. E.	12	0	0	30. 132	. 78	. 78	. 87	..
5	74	84	78	78⅔	....	3-4	3-4	0	N. E.	8	N. E.	7	N. E.	5	30. 135	. 76	. 53	. 69	..
6	74	87	81	80⅔	....	1-4	1-2	1-4	N. E.	6	N. E.	7	N.	5	30. 065	. 72	. 45	. 70	..
7	80	81	80	80⅓	....	4-4	4-4	1-2	0	0	E.	5	0	0	29. 996	. 78	. 55	. 82	..
8	78	88	77	81	. 13	0	4-4	3-4	S. E.	1	0	0	E.	2	29. 994	. 73	. 52	. 77	..
9	77	87	81	81⅔	. 11	1-4	3-4	3-4	E.	5	E.	7	E.	1	30. 055	. 82	. 55	. 78	..
10	76	87	80	81	....	4-4	3-4	4-4	E.	2	E.	8	E.	1	30. 102	. 91	. 58	. 82	..
11	81	90	83	84⅔	....	1-2	3-4	0	N. E.	4	S. E.	8	N.	4	30. 031	. 78	. 60	. 71	..
12	82	91	81	84⅔	....	3-4	3-4	4-4	N.	2	E.	5	E.	4	30. 038	. 79	. 57	. 78	..
13	78	91	85	84⅔	....	3-4	3-4	1-2	S. W.	6	S. W.	7	S. W.	2	30. 014	. 86	. 54	. 72	..
14	80	90	76	82	. 60	3-4	3-4	1-2	0	0	S. W.	7	0	0	29. 971	. 82	. 56	. 91	..
15	76	91	77	81⅓	. 24	3-4	3-4	4-4	N.	4	N.	2	S. E.	8	29. 895	. 91	. 60	. 91	..
16	75	85	79	79⅔	...	4-4	4-4	3-4	N. E.	4	N. E.	4	0	0	29. 939	. 90	. 68	. 87	..
17	76	82	79	79	. 05	4-4	4-4	1-2	N.	8	N.	5	N. E.	5	29. 997	. 91	. 83	. 78	..
18	78	85	79	80⅔	....	1-2	1-4	0	N. E.	5	N. E.	6	0	0	30. 062	. 69	. 41	. 70	..
19	77	85	79	80⅓	....	1-4	1-2	1-4	N. E.	1	E.	4	0	0	30. 043	. 69	. 44	. 66	..
20	76	85	81	80⅔	....	3-4	1-2	1-4	E.	1	S. E.	4	S. E.	4	29. 961	. 73	. 47	. 67	2
21	76	82	79	79	....	1-4	1-4	0	S. W.	1	N.	7	E.	2	29. 969	. 77	. 83	. 78	1
22	79	86	79	81⅓	....	1-2	3-4	0	0	0	E.	7	N. E.	2	30. 029	. 74	. 48	. 74	4
23	76	86	79	80⅓	....	3-4	3-4	0	E.	2	E.	5	0	0	30. 076	. 82	. 58	. 82	..
24	81	88	84	84⅓	....	0	1-2	1-4	S.	2	N. W.	5	0	0	30. 107	. 70	. 49	. 75	2
25	81	90	83	84⅔	....	0	1-2	1-2	S.	1	N. E.	4	0	0	30. 037	. 74	. 50	. 75	2
26	79	90	77	82	....	3-4	3-4	3-4	W.	6	N.	4	S. W.	2	30. 020	. 78	. 53	. 82	1
27	78	91	86	85	....	0	1-2	0	S. W.	1	N. E.	1	0	0	30. 016	. 78	. 51	. 68	3
28	78	91	81	83⅓	....	1-4	1-4	1-4	W.	4	N. W.	2	S. E.	2	30. 053	. 73	. 54	. 70	4
29	79	84	80	83	. 05	0	3-4	0	S. W.	1	0	0	S. E.	4	30. 118	. 74	. 68	. 87	4
30	80	91	84	85	....	0	1-2	0	S.	2	S.	5	S. W.	6	30. 175	. 82	. 48	. 64	2
31	80	89	82	83⅔	....	0	1-2	1-4	0	0	0	0	S. E.	1	30. 133	. 74	. 50	. 71	4

REMARKS.—Normal summer-heat for this latitude prevailed during the month; mean temperature 82°.56; highest at 2 p. m., 91° on the 12th, 13th, 15th, 27th, 28th, and 30th; lowest, 80° on the 4th. Force of wind remarkably uniform and moderate, scarcely rising at any time above the degree of "gentle." *Yellow fever:* The first death from yellow fever in Shreveport this summer was observed on the 20th day of August, which date proved the beginning of the epidemic of 1873. Total deaths from the disease during the month, 29.

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* The force is estimated and registered by figures from 1 to 10, as in the first column of the following table. The figures in the last column, expressing the number of miles per hour, are used in the above.

1. Very light breeze	2 miles per hour.		6. Gale	45 miles per hour.	
2. Gentle breeze	4	do.	7. Strong gale	60	do.
3. Fresh breeze	12	do.	8. Violent gale	75	do.
4. Strong wind	25	do.	9. Hurricane	90	do.
5. High wind	35	do.	10. Most violent hurricane	100	do.

† The numbers under the head of "Relative humidity" denote the percentage of saturation; full saturation being indicated by 1, and half saturation by 0.5.

Table showing the Meteorological Conditions observed at Shreveport, La., during the Yellow-Fever Epidemic of 1873—Continued.

Day of month.	Thermometer in the open air.				Rain-fall, inches.	Amount of cloudiness.			Winds.						Barometer reduced to freezing-point.	Relative humidity or fraction of saturation.			Deaths from yellow fever.
									7 a. m.		2 p. m.		9 p. m.						
	7 a. m.	2 p. m.	9 p. m.	Mean.		7 a. m.	2 p. m.	9 p. m.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Mean.	7 a. m.	2 p. m.	9 p. m.	
Sept. 1	79	86	83	82⅔	....	0	3-4	1-4	S. W.	4	S.	5	0	0	30.071	.78	.58	.71	6
2	78	91	81	83⅓	....	1-2	1-2	4-4	S.	7	S.	7	S.	7	30.042	.82	.45	.70	5
3	79	98	83	81⅓	....	3-4	3-4	1-4	S. W.	6	S. W.	10	S.	4	30.022	.82	.45	.60	5
4	78	92	82	84	....	3-4	1-2	0	S. W.	5	S.	7	S.	4	30.052	.82	.43	.63	2
5	79	91	85	85	....	1-4	1-4	1-2	S. W.	2	N. W.	5	0	0	30.127	.82	.36	.64	4
6	77	91	79	82⅓	....	3-4	1-2	3-4	N.	1	N. E.	6	N.	14	30.167	.77	.45	.74	7
7	74	83	72	76⅓	.01	1-2	3-4	3-4	N.	7	N.	12	N. E.	8	30.214	.76	.67	.71	10
8	68	79	71	72⅔	....	1-2	1-2	1-4	N. E.	8	E.	10	N. E.	4	30.178	.70	.58	.62	11
9	67	85	77	76⅓	....	1-4	3-4	3-4	N. E.	5	N. E.	5	0	0	30.074	.69	.51	.73	8
10	75	87	79	80⅓	....	1-2	1-2	1-4	N. E.	1	N. E.	4	S. E.	2	30.065	.77	.69	.70	15
11	77	87	81	81⅔	....	1-4	1-2	1-2	N. E.	1	E	4	S. E.	4	30.050	.73	.65	.59	18
12	77	76	73	75⅓	....	4-1	4-4	4-4	0	0	S. E.	6	S. E.	5	29.999	.75	.82	.90	15
13	69	76	70	71⅔	1.56	4-4	1-4	0	S. W.	1	N. E.	1	N. E.	10	30.076	.90	.64	.80	26
14	61	69	64	64⅔	.06	0	0	0	N. E.	7	N. E.	7	N. E.	4	30.140	.71	.56	.78	24
15	64	81	69	71⅓	....	0	0	0	N. E.	2	S. E.	4	E.	1	30.121	.68	.41	.85	31
16	67	83	73	74⅓	....	0	1-4	0	E.	2	E.	6	0	0	30.107	.74	.30	.67	24
17	69	85	74	76	....	0	1-4	0	0	0	E.	2	0	0	29.978	.70	.41	.76	18
18	70	87	79	78⅔	....	0	1-4	0	E.	1	N. E.	1	0	0	29.899	.80	.45	.74	19
19	75	87	72	78	...	0	1-2	0	N. E.	2	N. E.	1	N. E.	8	29.939	.72	.49	.76	16
20	63	77	69	69⅔	....	0	1-4	0	N. E.	6	E.	7	N. E.	4	30.028	.62	.46	.56	14
21	63	80	69	70⅔	.01	3-4	3-4	0	E.	4	E.	7	N. E.	6	30.021	.67	.51	.75	15
22	65	71	68	68	.05	4-4	1-2	1-4	0	0	N. E.	10	N. E.	2	30.002	.78	.85	.95	18
23	66	78	68	70⅔	....	0	3-4	0	N. E.	5	N.	7	N.	5	29.970	.89	.54	.84	11
24	62	85	74	73⅔	....	0	1-2	0	S. E.	2	S. W.	8	S.	8	29.866	1.00	.47	.76	10
25	70	87	75	77⅓	....	0	1-2	0	S.	4	S. E.	4	S. E.	2	29.935	1.00	.62	.77	14
26	73	83	76	77⅓	....	1-4	3-4	4-4	S. E.	6	S.	5	S. E.	5	29.988	.85	.83	.82	15
27	75	82	74	77	.48	4-4	4-4	1-2	S. E.	10	S. E.	4	S. E.	5	29.981	.90	.75	1.00	20
28	77	87	80	81⅓	....	3-4	1-2	1-2	S. E.	2	S.	4	S.	6	29.928	.91	.62	.82	11
29	72	76	69	72⅓	.12	4-4	4-4	4-4	N. E.	13	N. W.	6	N. E.	13	30.066	.95	.82	.95	7
30	64	74	64	67⅓	....	4-4	1-4	0	N. E.	7	N. E.	6	N. E.	7	30.146	.73	.76	.73	7

Remarks.—Extremes of temperature during this month: Highest at 2 p. m., 92°, on the 4th; lowest, 69°, on the 14th; mean for the month, 76°.14. Humidity appears much greater than last September. Wind variable in force and direction. *Yellow fever:* Heavy mortality from yellow fever during this month, proving most fatal about the middle of the month, averaging seventy-five per cent. Total deaths from the disease, 406.

Table showing the Meteorological Conditions observed at Shreveport, La., during the Yellow-Fever Epidemic of 1873—Continued.

Day of month.	Thermometer in the open air.				Rain-fall, inches.	Amount of cloudiness.			Winds.						Barometer reduced to freezing-point.	Relative humidity or fraction of saturation.			Deaths from yellow fever.
									7 a. m.		2 p. m.		9 p. m.						
	7 a. m.	2 p. m.	9 p. m.	Mean.		7 a. m.	2 p. m.	9 p. m.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Mean.	7 a. m.	2 p. m.	9 p. m.	
Oct. 1	61	75	67	67⅔	....	0	2-4	1-2	N. E.	5	N.	5	N. E.	7	30. 083	. 55	. 44	. 69	8
2	65	79	71	71⅔	....	3-4	0	0	N. E.	2	N. W.	2	N. W.	1	30. 090	. 73	. 43	. 80	11
3	69	84	77	76⅔	....	0	1-2	0	N. E.	2	E.	2	S. E.	1	30. 028	. 75	. 54	. 69	16
4	73	88	80	80⅓	....	0	1-2	0	S.	1	W.	5	0	0	29. 953	. 72	. 40	. 70	7
5	74	88	80	80⅔	....	0	3-4	1-4	0	0	N. W.	2	0	0	29. 915	. 72	. 43	. 70	11
6	61	66	57	61⅓	....	1-4	0	0	N.	18	N. E.	14	N.	10	30. 137	. 61	. 32	. 47	12
7	54	64	59	59	....	0	0	0	N.	4	N.	5	0	0	30. 136	. 57	. 34	. 70	6
8	54	68	63	61⅔	....	3-4	3-4	0	0	0	E.	6	S. E.	2	30. 116	. 74	. 56	. 67	12
9	55	77	69	67	....	0	1-2	1-2	S. E.	1	S. E.	7	S. E.	2	30. 129	. 81	. 61	. 75	10
10	64	79	69	70⅔	....	0	3-4	0	0	0	E.	5	0	0	30. 178	. 78	. 47	. 75	2
11	65	87	75	75⅔	....	4-4	1-2	0	0	0	N. W.	8	0	0	30. 184	. 78	. 45	. 68	3
12	66	74	65	68⅓	....	0	0	0	0	0	N. E.	10	N. E.	1	30. 217	. 54	. 29	. 49	8
13	57	73	61	63⅔	....	0	0	0	N. E.	1	E.	2	E.	5	30. 163	. 63	. 24	. 71	7
14	56	74	65	65	....	0	0	0	0	0	E.	10	S. E.	4	30. 186	. 69	. 36	. 68	7
15	62	79	73	71⅓	...	3-4	1-2	1-4	S. E.	1	S. E	10	S. E.	4	30. 277	. 72	. 51	. 63	8
16	70	77	73	73⅓	. 05	4-4	4-4	1-2	S. E.	2	S.	4	S. E.	1	30. 190	. 90	. 77	. 81	5
17	69	80	75	74⅔	. 01	1-2	3-4	4-4	S. E.	4	S. W.	8	S. E.	8	30. 040	. 80	. 87	. 78	7
18	67	70	59	65⅓	1. 17	4-4	1-2	1-4	N.	12	N.	8	N.	14	30. 106	. 95	. 53	. 70	2
19	50	60	52	54	....	0	0	0	N.	5	N.	18	N. W.	2	30. 253	. 65	. 29	. 60	7
20	46	70	56	57⅓	...	0	0	0	W.	2	N. W.	7	N. E.	2	30. 073	. 77	. 36	. 81	5
21	49	71	65	61⅔	...	0	1-2	0	S. E.	2	S.	18	S.	7	29. 860	. 78	. 49	. 63	3
22	63	68	50	60⅓	1. 00	4-4	4-4	4-4	S. E.	2	S. W.	13	N. W.	7	29. 969	. 89	. 95	1. 00	4
23	41	49	47	45⅔	1. 06	4-4	0	0	N.	8	N. E.	8	N. E.	4	30. 193	. 91	. 93	. 85	6
24	39	53	48	46⅔	. 01	1-4	1-4	4-4	N. E.	4	S. E.	4	E.	6	30. 246	. 91	. 80	1. 00	3
25	48	62	63	57⅔	. 85	4-4	4-4	4-4	E.	5	S. E.	4	S. E.	4	30. 133	1. 00	. 83	. 94	2
26	68	78	61	69	....	4-4	4-4	4-4	S.	5	S. W.	5	N. W.	12	29. 936	1. 00	. 91	. 77	5
27	45	60	54	53	....	3-4	1-4	0	N. W.	4	N.	5	S. W.	4	30. 088	. 84	. 39	. 61	5
28	37	47	40	41⅓	....	0	0	0	N.	7	N. W.	19	N. W.	8	30. 454	. 62	. 28	. 56	4
29	33	55	47	45	....	0	0	0	......	....	S. W.	2	S.	4	30. 376	. 89	. 62	. 48	3
30	42	67	53	54	....	0	0	0	S. W.	4	W.	10	N.	1	30. 170	. 74	. 60	. 86	3
31	45	57	47	49⅔	....	0	0	0	N.	8	N. E.	10	N. E.	4	30. 341	. 61	. 31	. 62	4

REMARKS.—Extremes of temperature: Highest at 2 p. m., 88°, on the 4th; lowest, 47°, on the 28th; mean for the month, 62°.68. Variable winds; fluctuating barometer; thunder-storm on the 26th of the month; greatest force of the wind sixty miles an hour. *Yellow fever;* An abatement of the yellow fever, as shown by mortality, was noticed about the middle of September and continued through this month, making a difference of 210 in deaths. Total deaths from yellow fever for November, 196.

Table showing the Meteorological Conditions observed at Shreveport, La., during the Yellow-Fever Epidemic of 1873—Continued.

Day of month.	Thermometer in the open air.				Rain fall, inches.	Amount of cloudiness.			Winds.						Barometer reduced to freezing-point.	Relative humidity or fraction of saturation.			Deaths from yellow fever.
									7 a. m.		2 p. m.		9 p. m.						
	7 a. m.	2 p. m.	9 p. m.	Mean.		7 a. m.	2 p. m.	9 p. m.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Mean.	7 a. m.	2 p. m.	9 p. m.	
Nov. 1	44	66	58	56	....	1-2	3-4	4 4	E.	4	S.	5	S. E.	1	30. 313	. 60	. 59	. 70	1
2	53	56	58	55⅔	1. 18	3.4	4-4	4 4	N. E.	5	S. E.	2	N.	6	30. 162	. 80	1. 00	1. 00	..
3	54	57	54	55	. 28	4-4	4-4	4-4	N. E.	7	N. E.	5	N. E.	6	30. 182	1. 00	. 87	. 93	2
4	54	69	58	57⅓	. 32	4-4	4-4	4-4	N. E.	6	N. W.	2	N. W.	2	30. 074	1. 00	. 88	. 94	1
5	56	60	58	58	. 07	4-4	4-4	4-4	N.	4	0	0	N.	4	30. 106	1. 00	. 88	. 94	1
6	55	68	61	61⅓	....	3-4	3-4	0	N. W.	6	N.	2	0	0	30. 042	. 93	. 65	. 88	2
7	51	73	62	62	....	0	0	0	W.	2	S. W.	6	W.	2	30. 016	1. 00	. 46	. 77	..
8	55	71	56	60⅔	....	0	0	0	N.	4	N.	1	N.	4	30. 230	. 80	. 37	. 81	2
9	47	74	60	60⅓	....	0	0	0	0	0	W.	2	0	0	30. 224	. 92	. 29	. 65	..
10	51	78	66	65	....	0	0	0	0	0	W.	5	S.	8	30. 116	. 86	. 29	. 50	1
11	56	79	62	65⅔	....	1-4	0	0	S.W.	7	S.W.	8	N. W.	4	30. 000	. 69	. 35	. 46	..
12	47	54	48	49⅔	....	1-4	0	0	N.	18	N. W.	16	N. W.	4	30. 271	. 48	. 32	. 36	..
13	35	59	50	48	....	0	0	0	0	0	S.W.	4	S.W.	7	30. 179	. 70	. 47	. 80	..
14	42	67	58	55⅔	....	1-4	3-4	3-4	S.	2	S.	1	S.	4	30. 171	. 74	. 33	. 58	..
15	55	69	64	62⅔	....	3-4	4-4	4-4	S.	4	S.W.	6	S.	6	30. 135	. 87	. 65	. 83	..
16	65	74	66	68⅓	....	4-4	1-2	0	S.W.	5	S.W.	8	N. W.	30	29. 966	. 99	. 59	. 19	..
17	51	73	68	64	....	1-2	0	1-4	N. W.	6	N. W.	20	S.W.	4	29. 623	. 52	. 17	. 22	..
18	53	58	48	53	....	3-4	0	3-4	N. W.	¾	N. W.	30	N.	20	30. 033	. 67	. 26	. 51	..
19	54	53	58	55	....	0	0	0	N. W.	1	N. W.	13	0	0	30. 271	. 45	. 24	. 64	..
20	35	60	53	49⅓	. 05	0	3-4	4-4	S. E.	2	S.	5	S.	4	30. 179	. 70	. 20	. 73	..
21	49	64	61	58	8. 50	4-4	3-4	4-4	E.	2	S. E.	2	S. E.	6	30. 135	. 92	. 67	. 77	..
22	60	66	64	63⅓	3. 85	4-4	4-4	4-4	S. E.	4	S. E.	2	N. E.	2	29. 853	. 94	. 84	1. 00	..
23	62	62	59	61	....	4-4	4-4	4-4	N. E.	10	E.	11	N.	4	29. 808	. 88	. 94	. 94	..
24	47	50	48	48⅓	....	4-4	4-4	0	N.	11	N. W.	5	W.	4	30. 119	. 92	. 72	. 85	..
25	66	63	55	61⅓	....	1-4	3-4	1-2	W.	4	N. W.	11	0	0	30. 168	. 69	. 33	. 50	..
26	45	63	55	54⅓	....	3-4	3-4	1-2	S. E.	2	S.	6	S.	12	29. 930	. 76	. 47	. 68	..
27	52	63	57	57⅓	....	4-4	1-2	4-4	S.	5	S.	1	0	0	29. 985	1. 00	. 67	. 81	..
28	45	46	45	45⅓	....	4-4	4-4	4-4	N. E.	11	N. E.	5	E.	4	30. 345	. 53	. 47	. 53	..
29	40	59	53	50⅔	....	4-4	0	1-2	E.	0	S. E.	4	S. E.	2	30. 355	1. 00	. 48	. 73	..
30	51	70	63	61⅓	....	0	4-4	1-4	S.	6	S.	6	S.	8	30. 275	1. 00	. 61	. 78	..

REMARKS.—Mean temperature for the month, 57.45°; highest at 2 p. m., 79°, on the 11th; lowest, 46°, on the 28th; first frost, night of the 12th and 13th. *Yellow fever:* Yellow fever continued to abate, until the 10th of the month, when the last death occurred; total deaths from yellow fever for the month, 10.

TABLE OF THE METEOROLOGICAL CONDITIONS OBSERVED AT MEMPHIS, TENN.

Compiled from the Reports of the Signal-Service, U. S. A., for Comparison

[MEMPHIS: County of Shelby, State of Tennessee; latitude 35° 07′ north;

1872.	Thermometer.				Rain-fall, inches.	Amount of cloudiness.*						Wind.						Barometer.†	Humidity, per cent.		
						7.35 a.m.		4.35 p.m.		11 p.m.		7.35 a.m.		4.35 p.m.		11 p.m.					
Aug.	7.35 a.m.	4.35 p.m.	11 p.m.	Mean.		Lower.	Upper.	Lower.	Upper.	Lower.	Upper.	Direction.	Velocity.	Direction.	Velocity.	Direction.	Velocity.	Mean.	7 a.m.	2 p.m.	9 p.m.
1 ...	72	89	..	80. 50	....	0	2-4	0	2-4	....	....	N. W.	6	N. W.	4	......	..	30. 07	. 85	. 56	....
2 ...	76	85	77	79. 66	....	0	1-4	0	1-4	2-4	0	N. E.	5	N. W.	11	N. W.	2	30. 09	. 72	. 46	. 64
3 ...	73	81	70	74. 66	....	0	0	0	1-4	0	0	N. E.	4	N. W.	11	N. E.	4	30. 11	. 71	. 44	. 65
4 ...	....	82	71	76. 50	....	...	....	0	2-4	0	0	....	..	N. W.	10	N. E.	6	30. 16	....	. 45	. 70
5 ...	69	70	90	76. 33	....	0	1-4	0	1-4	0	0	N.	4	N.	6	N.	4	30. 15	. 70	. 50	. 76
6 ...	74	88	78	80. 00	....	0	0	0	2-4	0	0	N. E.	..	N. E.	4	N. E.	..	30. 14	. 76	. 52	. 77
7 ...	78	90	85	84. 33	....	0	1-4	0	2-4	1-4	0	N. E.	..	N. E.	..	N. E.	..	30. 11	. 73	. 47	. 77
8 ...	80	88	78	82. 00	....	1-4	0	0	2-4	0	0	S. E.	..	E.	..	S. W.	0	30. 10	. 74	. 55	. 77
9 ...	78	94	75	82. 33	....	0	1-4	0	1-4	4-4	....	S. E.	..	S. E.	..	E.	..	30. 10	. 77	. 40	. 81
10 ...	77	90	80	82. 33	....	0	2-4	0	....	1-4	0	0	0	S. W.	..	0	0	30. 05	. 73	. 44	. 78
11 ...	80	93	83	85. 33	....	0	0	0	2-4	1-4	0	S. E.	..	S. E.	..	S. E.	0	30. 05	. 78	. 48	. 71
12 ...	81	78	76	78. 33	....	1-4	0	2-4	1-4	3-4	0	S. W.		S. E.	..	0	0	30. 96	. 78	. 77	. 81
13 ...	77	85	79	80. 33	....	0	1-4	2-4	1-4	1-4	2-4	S. E.	..	N. W.	..	W.	..	30. 06	. 81	. 68	. 38
14 ...	79	88	79	82. 00	....	0	2-4	0	1-4	0	0	W.	10	N. W.	..	N. E.	..	30. 02	. 82	. 46	. 74
15 ...	75	85	76	78. 66	....	0	0	0	4-4	0	0	N.	..	N. W.	..	N. W.	..	30. 07	. 68	. 41	. 81
16 ...	74	88	77	79. 66	....	0	0	0	2-4	0	0	0	0	N. W.	..	0	0	30. 05	. 81	. 37	. 64
17 ...	75	91	78	81. 33	....	0	0	0	1-4	0	0	S. W.	1	S. E.	4	0	0	30. 07	68	. 36	. 69
18 ...	78	92	80	83. 33	....	0	1-4	0	1-4	0	0	S. E.	1	N. E.	5	0	0	30. 12	. 65	. 37	. 70
19 ...	78	93	82	84. 33	....	0	0	0	1-4	0	0	S.	1	S. E.	4	S. E.	4	30. 18	. 77	. 4	. 66
20 ...	80	93	82	85. 00	....	0	0	0	2-4	0	0	0	0	E.	2	0	0	30. 20	. 70	. 43	. 70
21 ...	81	93	83	85. 66	....	0	0	0	2-4	1-4	0	0	0	0	0	0	0	30. 22	. 70	. 43	. 75
22 ...	80	94	84	86. 00	....	S.	2-4	0	1-4	0	1-4	0	0	N. W.	4	0	0	30. 17	. 78	. 40	. 67
23 ...	82	94	82	86. 00	....	0	0	0	2-4	1-4	1-4	0	0	0	0	N. E.	1	30. 03	. 74	. 40	. 59
24 ...	78	96	84	86. 00	....	0	0	0	1-4	1-4	0	N. E.	1	S. W.	5	S. W.	7	29. 96	. 69	. 39	. 64
25 ...	83	98	87	89. 33	....	0	1-4	0	1-4	1-4	0	0	0	N. W.	4	0	0	30. 02	. 67	. 38	. 65
26 ...	82	97	84	89. 33	....	0	1-4	1-4	1-4	2-4	0	S. E.	1	N. E.	4	S.	1	30. 06	. 70	. 37	. 64
27 ...	80	93	82	85. 00	. 54	0	2-4	1-4	2-4	1-4	0	S.	1	W.	4	0	0	30. 02	. 78	. 48	. 74
28 ...	80	95	84	86. 33	....	S.	1-4	0	1-4	1-4	0	S.	1	W.	6	S. W.	2	29. 97	. 78	. 44	. 71
29 ...	79	87	64	76. 66	....	0	2-4	0	2-4	2-4	0	N. W.	4	N. W.	12	N. E.	8	29. 99	. 77	. 58	. 67
30 ...	68	80	66	71. 33	....	0	1-4	0	1-4	1-4	0	N.	6	N. E.	10	N. E.	4	30. 09	. 74	. 30	. 58
31 ...	62	78	66	68. 66	....	1-4	2-4	0	1-4	1-4	0	N. E.	4	N. E.	8	N. E.	4	30. 09	. 66	. 29	. 58
Sept.																					
1 ...	60	83	69	70. 66	....	0	0	0	0	0	0	N. E.	3	N. E.	6	N.	4	30. 17	. 59	. 21	. 65
2 ...	64	85	73	74. 00	....	0	0	0	1-4	1-4	0	E.	1	N.W.	8	N.	1	30. 16	. 67	. 32	. 58
3 ...	65	87	75	75. 66	...	0	0	0	1-4	1-4	0	E.	1	N.W.	6	0	0	30. 10	. 73	. 27	. 63
4 ...	69	89	75	77. 66	....	0	1-4	0	0	0	0	0	0	S.W.	8	0	0	30. 01	. 84	. 32	. 59
5 ...	69	91	79	79. 66	....	S.	H.	S.	H.	0	0	S.W.	1	S.W.	10	S.	4	29. 96	. 70	. 39	. 78
6 ...	74	92	79	81. 66	....	0	0	0	2-4	0	0	S.	5	S.W.	9	S.	3	30. 01	. 67	. 37	. 58
7 ...	75	93	82	83. 33	....	1-4	0	0	1-4	0	0	S.	1	S.	6	S.W.	1	30. 04	. 68	. 40	. 59
8 ..	76	93	80	83. 00	....	0	0	0	1-4	0	0	S.	2	S.W.	10	S.	3	29. 99	. 68	. 40	. 62
9 ...	76	89	76	80. 33	....	0	1-4	0	2-4	0	0	S.	4	S.W.	7	S.	2	39. 02	. 68	. 46	. 68
10 ...	71	91	81	81. 00	...	S.	0	0	1-4	1-4	1-4	0	0	W.	4	S. E.	6	30. 02	. 71	. 36	. 67
11 ..	76	...	....	76. 00	1. 10	0	2-4	....	....	....	....	N.	1	......	..	......	..	30. 02	. 72	....	....
12 ...	....	....	....	......	....	....	....	....	....	....	....	....	..	......	..	......	..	......	....	....	....
13 ...	59	74	65	66. 00	....	0	0	0	0	0	0	N.W.	5	N.W.	10	N.	4	30. 20	. 87	. 39	. 63
14 ...	60	75	65	66. 66	...	0	0	0	0	0	0	N.	4	W.	12	N.W.	4	30. 20	. 70	. 36	. 63
15 ...	60	77	66	67. 66	....	0	0	0	0	0	0	0	0	W.	8	N.	1	30. 13	. 70	. 41	. 63
16 ...	60	79	71	70. 00	....	S.	0	0	2-4	0	2-4	N.W.	1	N.W.	8	N.	8	30. 07	. 82	. 40	. 66
17 ...	60	77	65	67. 33	....	0	1-4	0	0	0	0	N. E.	1	N. E.	6	0	0	30. 08	. 65	. 31	. 63
18 ...	58	84	75	72. 33	....	S.	1-4	0	0	0	0	0	0	S.W.	5	S W.	6	29. 98	. 77	. 40	. 63
19 ...	61	74	61	65. 33	....	0	0	0	0	0	0	N.	5	N. E.	4	N. E.	2	30. 11	. 60	. 32	. 65
20 ...	58	86	77	73. 66	....	H.	2-4	0	2-4	0	0	S. E.	6	S.W.	6	S.	1	30. 07	. 64	. 41	. 77
21 ...	72	89	79	80. 00	....	H.	H.	0	H.	0	0	0	0	S.W.	6	S.	2	30. 05	. 71	. 40	. 61
22 ...	72	89	79	80. 00	....	2-4	1-4	0	2-4	1-4	2-0	S.	4	S.W.	8	S. E.	6	30. 06	. 75	. 46	. 58
23 ...	70	87	76	77. 66	....	1-0	2-4	0.	2-4	1-4	2-0	S.	5	S.	8	S.	2	30. 03	. 79	. 42	. 64
24 ...	75	87	83	81. 66	....	2-4	1-4	2-0	2-4	0	4-4	S.	8	S.	12	S.	12	29. 95	....	....	....
25 ...	61	70	60	63. 66	1. 88	4-4	0	4-4	....	4-4	....	N.	8	S.	7	N. E.	4	30. 13	. 76	. 55	. 60
26 ...	61	75	63	66. 33	. 33	4-4	....	3 4	....	3-4	....	S. E.	4	N.	6	S.W.	4	29. 99	. 76	. 44	. 70
27 ...	56	77	66	66. 33	...	1-4	0	0	1-4	4-4	....	N. E.	4	N. E.	6	E.	8	30. 01	. 88	. 51	. 72
28 ...	70	73	67	66. 66	. 31	4-4	....	0	3-4	1-4	0	S.	8	S.W.	16	W.	8	29. 87	. 80	. 31	. 63
29 ...	61	73	61	65. 00	....	1-4	0	1-4	2-4	1-4	0	W.	2	W.	8	N.W.	2	30. 14	. 84	. 80	. 69
30 ...	55	67	57	59. 66	....	0	0	0	2-4	1-4	0	N.W.	6	N.W.	10	0	0	30. 17	. 76	. 31	. 71

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* The letters "F," "H," and "S," indicate *foggy*, *hazy*, and *smoky*, respectively.

† The barometer-readings here given, and in the subsequent tables, are at the temperature given for the corresponding days, and not, as in the preceding tables, reduced to freezing-point.

DURING THE AUGUSTS, SEPTEMBERS, OCTOBERS, AND NOVEMBERS OF 1872 AND 1873.

of Conditions during the Absence and the Prevalence of Yellow Fever.

longitude 90° 07′ west; height above the sea-level, 260 feet.]

1873.	Thermometer.				Rain fall, inches.	Amount of cloudiness.						Wind.						Barometer.	Humidity, per cent.		
						7.35 a.m.		4.35 p.m.		11 p. m.		7.35 a.m.		4.35 p.m.		11 p. m.					
Aug.	7.35 a. m.	4.35 p. m.	11 p. m.	Mean.		Lower.	Upper.	Lower.	Upper.	Lower.	Upper.	Direction.	Velocity.	Direction.	Velocity.	Direction.	Velocity.	Mean.	7.35 a. m.	4.35 p. m.	11 p. m.
1 ...	70	85	69	74.66	2.94	4-4	..	3-4	1-4	4-4	....	S. W.	5	S. W.	6	S. W.	2	30.06	1.00	.68	.94
2 ...	70	89	79	79.33	....	1-4	1-4	1-4	1-4	1.4	0	S. W.	2	S. W.	6	0	0	30.03	.94	.59	.86
3 ...	....	82	72	77.00	....	....	....	1-4	1-4	0	0	0	0	N.	12	N.	5	30.08	...	.59	.85
4 ...	68	79	69	72.00	....	0	1-4	0	1-4	0	0	N. E.	4	N. W.	10	N. E.	5	30.15	.81	.44	.74
5 ...	69	82	72	74.33	....	0	0	1-4	1-4	0	0	N.	3	N. E.	12	N. E.	5	30.15	.74	.42	.75
6 ...	71	87	76	74.66	....	0	1-4	2-4	1-4	1-4	....	N. E.	12	S. E.	5	S. E.	2	30.08	.75	.51	.81
7 ...	72	81	74	75.66	....	2-4	1-4	2-4	1-4	0	1-4	E.	12	N.	8	N. E.	1	30.01	.80	.66	.99
8 ...	75	88	78	80.33	....	0	0	1-4	1-4	0	1.4	S. E.	2	S. W.	5	E.	1	30.00	.85	.52	.77
9 ...	77	91	78	82.00	.03	S.	1-4	1-4	1-4	0	1-4	0	0	N. W.	5	S. E.	1	30.05	.81	.50	.90
10 ...	....	92	80	86.00	.23	...	...	1-4	2-4	2-4	0	6	0	N. W.	6	0	0	30.05	...	.56	.91
11 ...	81	91	82	84.66	....	S.	1-4	1-4	1-4	0	0	E.	4	N.	6	N.	2	29.67	.82	.50	.82
12 ...	79	93	82	84.66	..	1-4	2-4	1-4	1-4	2-4	H.	0	0	W.	5	N.	2	29.98	.82	.45	.78
13 ...	78	86	76	80.09	1.09	2-4	2-4	1-4	2-4	1-4	0	S. W.	4	W.	7	N. W.	1	29.96	.86	.68	.91
14 ...	75	85	75	78.33	....	S.	0	1-4	1-4	0	0	N. E.	1	N.	11	0	0	29.96	.76	.41	.76
15 ...	72	87	79	79.33	....	S.	H.	1-4	2-4	1-4	0	N. E.	2	W.	4	S.	2	29.89	.75	.48	.77
16 ...	73	79	74	75.33	....	4-4	....	4-4	....	4-4	....	W.	4	N. W.	11	N.	5	29.92	.90	.77	.85
17 ...	....	82	74	78.00	...	....	....	1-4	1-4	1.4	0	0	..	N. W.	12	N. W.	5	29.98	....	.55	.81
18 ...	71	81	71	74.00	....	S.	0	0	0	0	0	N.	2	N. W.	12	N.	2	30.05	.70	.41	.70
19 ...	69	85	75	76.33	....	H	1-4	1-1	2-4	1-4	0	N.	3	N.	8	E.	2	30.04	.70	.47	.92
20 ...	71	86	74	77.00	....	S.	2-4	1-4	1-4	1-4	0	N. E.	1	N. W.	6	N.	2	29.93	.70	.31	.72
21 ...	71	88	76	78.33	....	1-4	1-4	1-4	2-4	1-4	0	N. E.	2	E.	7	S.	2	29.98	.75	.76	.72
22 ...	71	86	75	77.33	...	2-4	1-4	2-4	1-4	1-4	0	S. E.	2	N. E.	6	N. W.	1	30.01	.85	.51	.81
23 ...	73	89	79	80.33	....	1-4	1-4	1-4	1-4	1-4	0	E.	1	E.	6	S. E.	1	30.0..	.85	.49	.73
24 ...	78	92	81	83.66	....	S.	1-4	H.	2-4	1-4	....	S. E.	1	S. W.	5	0	0	30.09	.86	.48	.67
25 ...	80	92	82	84.66	....	0	0	1-1	1-4	0	0	N. E.	1	W.	4	N.	2	30.09	.72	.45	.83
26 ...	79	94	83	85.33	....	0	1-4	1-4	1-4	0	0	S.	4	S. W.	5	S. W.	9	29.99	.82	.43	.75
27 ...	77	93	75	81.66	....	2-4	1-4	0	2-4	4-4	....	N.	2	W.	4	S. E.	5	29.96	.86	.43	.81
28 ...	75	88	77	80.00	....	S.	1-4	1-4	1-4	0	0	N.	4	N. W.	12	N. E.	4	29.95	.85	.49	.68
29 ...	72	88	78	79.33	....	S.	1-4	1-4	1-4	1-4	0	N. E.	3	N. W.	8	N.	3	30.01	.80	.46	.69
30 ...	77	92	78	82.33	....	0	0	1-1	1-4	S.	0	N.	1	S. W.	5	0	0	30.09	.77	.34	.69
31 ...	77	93	82	84.00	....	0	0	1-4	1-4	0	0	S. W.	1	S. W.	7	S. W.	6	30.11	.77	.48	.70
Sept.																					
1 ...	80	92	81	84.33	....	1-4	1-4	2-4	1-4	1-4	H.	S. W.	6	S. W.	12	W.	3	29.67	.74	.45	.82
2 ...	78	82	73	77.66	.48	0	1-4	H.	1-4	4-4	...	S. W.	1	N. W.	1	N. W.	7	30.01	.81	.66	.99
3 ...	76	77	76	76.33	.40	2-4	1-4	2-4	1-4	0	1-4	S.	8	S. W.	3	S.	5	29.97	.86	.77	.90
4 ...	76	89	79	81.33	....	H.	....	1-4	2-4	0	2-4	S. W.	6	S.	10	S. W.	5	30.12	.86	.52	.65
5 ...	77	85	76	79.66	...	4-4	....	2-4	1-4	H.	1-4	S. W.	1	N.	9	N. E.	4	30.17	.75	.64	.81
6 ...	74	84	72	76.66	....	S.	1-4	0	2-4	H.	H.	N. E.	3	N. E.	9	N. E.	5	30.20	.74	.84	.72
7 ...	66	....	65	65.50	....	2-4	4-4	1-4	1-4	0	0	N.	3	N. E.	14	N. E.	3	30.26	.78	.54	.78
8 ...	60	77	65	67.33	....	0	1-4	S.	0	0	0	N. E.	6	N.	10	N.	4	30.22	.65	.31	.68
9 ...	63	83	73	73.60	....	0	1-4	1-4	2-4	0	1-4	N. E.	3	N.	10	N. E.	3	30.09	.72	.52	.76
10 ...	69	86	76	77.00	....	2-4	1-4	2-4	1-4	0	0	S. E.	1	N.	4	0	0	30.07	.84	.44	.77
11 ...	72	86	76	78.00	....	S.	1-4	1-4	1-4	1-4	0	S.	1	W.	5	0	0	30.05	.72	.48	.77
12 ...	77	83	70	76.66	..	0	1-4	4-4	...	4-4	....	S. W.	2	S. W.	11	N.	13	29.96	.68	.52	.75
13 ...	67	71	58	65.33	.10	4-4	....	1-4	2-4	0	0	N. E.	4	N.	14	N.	7	30.08	.84	.49	.64
14 ...	53	68	58	59.66	....	S.	0	0	0	0	0	N.	5	N.	8	N.	2	30.14	.73	.42	.60
15 ...	55	76	64	65.00	....	S.	0	S.	0	0	0	E.	2	W.	2	0	0	30.11	.68	.41	.78
16 ...	65	82	71	72.66	....	S.	0	S.	1-4	0	0	0	0	N. W.	8	0	0	30.11	.71	.42	.75
17 ...	66	86	75	75.66	....	S	1-4	S.	1-4	0	0	0	0	W.	4	S. E.	4	29.99	.83	.41	.55
18 ..	70	85	75	76.66	....	S.	1-4	1-4	1-4	S.	0	0	0	N. W.	6	0	0	29.91	.79	.50	.73
19 ...	63	69	56	62.66	....	4-4	....	S.	1-4	S.	0	N.	13	N.	13	N.	5	30.00	.72	.39	.56
20 ...	53	64	58	58.33	....	1-4	1-4	4-4	....	4-4	....	N. E.	4	N. W.	10	N. E.	2	30.09	.60	.52	.25
21 ...	58	73	65	65.33	....	1-4	2-4	3-4	1-4	4-4	....	N. E.	2	N. W.	9	N. E.	2	30.07	.64	.42	.73
22 ...	65	70	63	66.00	.51	1-4	2-4	4-4	....	1-4	0	W.	3	N	11	N. E.	3	30.06	.78	.65	.94
23 ...	60	70	61	63.66	....	4-4	....	1-4	1-4	0	0	N. E	8	N. W.	6	N.	2	29.98	.92	.61	.82
24 ...	56	73	68	65.66	....	F.	....	2-4	1-1	4-4	....	S. E.	3	S. E.	6	S.	4	29.86	.87	.67	.70
25 ...	66	79	74	73.00	....	4-4	....	1-4	2-4	0	0	N.	5	N. W.	6	S.	4	29.93	.89	.65	.81
26 ...	70	87	76	77.66	....	0	0	1-4	1-4	0	0	S.	7	S. W.	8	S. E.	4	29.99	.89	.45	.72
27 ...	72	78	76	75.33	.82	4-4	....	4-4	....	4-4	....	E.	4	S. E.	2	S. W.	4	30.03	.85	.86	.81
28 ...	72	84	71	75.66	.24	....	....	1-4	2-4	4-4	...	S. E.	2	S.	9	N.	9	29.95	.90	.64	.89
29 ...	71	63	59	64.33	1.18	4-4	....	....	...	4-4	...	0	0	N. W.	13	N. W.	9	30.05	.89	.83	.81
30 ...	54	66	56	58.66	....	0	1-4	0	0	0	0	N. E.	8	N.	13	N. E.	7	30.17	.80	.45	.77

Table of Meteorological Conditions observed at Memphis, Tenn., during the Augusts,

1872.	Thermometer.				Rain-fall, inches.	Amount of cloudiness.						Wind.						Barometer.	Humidity per cent.		
						7.35 a.m.		4.35 p.m.		11 p. m.		7.35 a.m.		4.35 p.m.		11 p. m.					
Oct.	7. 35 a. m.	4. 35 p. m.	11 p. m.	Mean.		Lower.	Upper.	Lower.	Upper.	Lower.	Upper.	Direction.	Velocity.	Direction.	Velocity.	Direction.	Velocity.	Mean.	7. 35 a. m.	4. 35 p. m.	11 p. m.
1 ...	45	71	61	59. 00	....	1-4	0	0	0	1-4	0	W.	1	N. W.	4	S.W.	8	30. 21	. 85	. 36	. 71
2 ...	56	78	66	66. 66	....	S.	0	0	0	0	0	S.	2	S. W.	5	S.	1	30. 14	. 74	. 42	. 73
3 ...	64	84	73	73. 33	....	0	0	H.	0	0	0	S.	4	S. W.	8	S.W.	8	30. 00	. 76	. 40	. 71
4 ...	67	84	71	74. 00	....	F.	0	0	H.	0	0	S. W.	4	S. W.	6	S.	4	30. 12	. 84	. 40	. 70
5 ...	65	83	70	72. 66	....	S.	0	0	2-4	1-1	H.	S.	3	S.	8	S.	1	30. 02	. 73	. 42	. 70
6 ...	65	65	63	64. 33	1. 96	2-4	2-4	4-4	....	0	0	S.	1	N. W.	4	N.	12	30. 05	. 73	. 94	. 94
7 ...	56	70	58	61. 33	....	1-4	1-4	0	1-4	0	0	N. E.	5	N.	8	N.	2	30. 13	. 87	. 65	. 80
8 ...	53	72	58	61. 00	....	0	1-4	0	0	1-4	0	N. E.	4	N. E.	8	0	0	30. 13	. 79	. 34	. 81
9 ...	52	76	63	63. 66	....	S.	0	0	2-4	S.	2-4	N. E.	4	N. W.	4	N. W.	2	30. 13	. 86	. 41	. 88
10 ...	53	58	46	52. 33	....	0	0	S.	0	0	0	W.	16	N.	16	N.	4	30. 31	. 55	. 42	. 54
11 ...	42	59	48	49. 66	....	S.	0	0	0	S.	0	N.	4	N. W.	8	N.	1	30. 29	. 66	. 43	. 77
12 ...	38	65	53	52. 00	....	S.	0	0	0	0	0	N.	1	S.W.	8	S.W.	4	30. 11	. 90	. 38	. 66
13 ...	51	67	56	58. 00	....	S.	0	H.	0	0	0	N. W.	8	N. W.	8	N. W.	8	30. 09	. 72	. 28	. 51
14 ...	42	55	44	47. 00	....	S.	0	H.	0	S.	0	N. W.	8	N. W.	4	N.	2	30. 22	. 66	. 33	. 75
15 ...	43	68	61	57. 33	....	S.	0	4-4	....	0	2-4	S.	8	S.	12	S.W.	12	30. 02	. 66	. 38	. 45
16 ...	59	70	64	64. 33	....	1-4	2-4	H.	4-4	1-4	2-4	S.	12	S.W.	8	S.	4	30. 12	. 64	. 61	. 78
17 ...	59	75	63	65. 66	....	2-4	2-4	H.	1-4	S.	0	S.	1	S.W.	4	S.W.	1	30. 21	. 81	. 51	. 83
18 ...	53	71	55	59. 66	....	F.	....	H.	0	S.	0	W.	4	N. W.	8	0	0	30. 25	. 93	. 29	. 74
19 ...	47	71	55	57. 66	....	F.	0	0	0	S.	0	N. W.	1	N.	3	0	0	30. 24	. 92	. 25	. 74
20 ...	49	73	56	59. 33	....	F.	0	0	2-4	0	1-4	0	0	N.	2	0	0	30. 14	. 85	. 31	. 68
21 ...	53	74	65	64. 00	. 02	S.	4-4	1-4	2-4	4-4	....	E.	3	S.	4	S. E.	12	30. 06	. 66	. 51	. 89
22 ...	63	64	54	60. 33	. 77	4-4	....	4-4	....	4-4	....	N.	2	N. E.	8	N.	12	30. 14	. 94	. 94	. 86
23 ...	51	58	51	53. 33	. 05	4-4	....	4-4	....	1-4	....	N.	8	N.	12	N. E.	5	30. 29	. 85	. 69	. 72
24 ...	46	63	55	54. 66	....	S.	2-4	0	2-4	1-4	0	N.	4	N.	7	N.	4	30. 24	. 76	. 51	. 68
25 ...	48	64	53	55. 00	....	S.	0	0	2-4	S.	0	N. W.	4	N. W.	5	N. E.	3	30. 14	. 85	. 57	. 86
26 ...	45	67	53	55. 00	....	0	....	0	0	0	0	0	0	N. W.	2	0	0	30. 07	1. 00	. 41	. 79
27 ...	47	70	56	57. 66	....	S.	0	0	H.	S.	0	0	0	S. W.	2	0	0	30. 07	. 84	. 48	. 80
28 ...	49	72	60	60. 33	....	S.	0	0	0	1-4	0	N. E.	1	E.	5	E.	8	30. 14	. 78	. 34	. 44
29 ...	56	66	65	62. 33	....	2-4	2-4	4-4	....	2-4	0	S. E.	5	S. E.	12	S. E.	8	30. 09	. 51	. 45	. 53
30 ...	56	61	49	55. 33	. 27	4-4	....	0	1-4	S.	0	S.	4	N. W.	8	N. W.	1	30. 18	. 93	. 40	. 78
31 ...	38	61	51	50. 00	....	F.	...	0	1-4	S.	0	0	0	N. E.	3	0	0	30. 24	1. 00	. 30	. 65
Nov.																					
1 ...	42	62	52	55. 33	....	S.	1-4	2-4	2-4	2-4	0	E.	2	S.	3	S. W.	2	30. 14	. 82	. 62	. 86
2 ...	47	62	50	53. 00	....	1-4	H.	0	0	S.	0	W.	8	W.	8	S. W.	2	30. 09	. 84	. 22	. 64
3 ...	41	65	55	53. 66	....	S.	H.	0	H.	0	0	N. E.	6	E.	4	S. E.	4	30. 13	. 65	. 35	. 56
4 ...	51	62	64	59. 00	...	S.	2-4	4-4	....	4-4	....	S. E.	4	E.	4	S. E.	12	30. 00	. 65	. 51	. 43
5 ...	51	57	47	52. 66	. 03	4-4	....	4-4	....	S.	....	S.	4	N. W.	8	N.	4	30. 12	. 86	. 75	. 84
6 ...	43	47	47	45. 66	. 21	4-4	....	4-4	....	4-4	....	N.	1	N.	8	N.	8	30. 16	. 75	. 77	. 69
7 ...	41	57	52	50. 00	....	4-4	....	1-4	H.	4-4	....	0	0	S. W.	2	0	0	30. 11	. 91	. 54	. 66
8 ...	47	69	55	54. 00	....	4-4	....	1-4	3-4	4-4	....	N. E.	3	N. E.	8	N. E.	3	30. 03	. 77	. 44	. 50
9 ...	50	65	53	56. 00	. 01	1-4	0	0	1-4	S.	1-4	N. E.	8	N. E.	4	N. E.	5	29. 92	. 51	. 48	. 48
10 ...	51	58	56	55. 00	....	4-4	....	4-4	....	4-4	....	S. E.	4	S. W.	4	S.	4	30. 00	. 92	. 58	. 56
11 ...	55	65	52	57. 33	. 35	4-4	....	1-4	3-4	4-4	...	S. W.	3	S. E.	2	N.	12	30. 07	. 86	. 63	1. 00
12 ...	43	55	51	49. 66	....	1-4	0	0	2-4	4-4	....	N.	4	S. E.	16	E.	6	30. 07	. 83	. 50	. 59
13 ...	51	58	44	51. 00	...	4-4	...	0	0	0	0	S.	8	N. W.	10	N. W.	16	29. 97	. 85	. 31	. 37
14 ...	31	39	31	33. 66	....	0	0	H.	0	0	1-4	W.	8	N. W.	12	W.	6	30. 30	. 38	. 34	. 58
15 ...	26	36	31	31. 00	....	2-4	1-4	0	2-4	0	0	W.	5	W.	14	S. W.	8	30. 03	. 75	. 55	. 58
16 ...	27	34	29	30. 00	....	S.	2-4	S.	0	S.	0	W.	8	N. W.	4	N.	2	30. 15	. 52	. 34	. 52
17 ...	21	36	33	30. 00	....	S.	1-4	0	2-4	S.	1-4	0	0	W.	3	0	0	30. 29	. 71	. 46	. 80
18 ...	27	40	33	33. 33	....	F.	H.	S.	H.	S.	0	S. W.	1	S. W.	8	S.	3	30. 42	. 76	. 39	. 50
19 ...	33	52	47	44. 00	....	S.	2-4	S.	3-4	4-4	....	S.	6	S. W.	7	N.	8	30. 17	. 51	. 29	. 41
20 ...	26	35	29	30. 00	....	S.	0	0	1-4	0	1-4	N.	8	N. E.	3	S. E.	6	30. 30	. 63	. 35	. 44
21 ...	29	46	40	38. 33	. 01	S.	1-4	4-4	....	S.	0	S.	4	S. W.	4	S. W.	4	30. 06	. 55	. 69	. 55
22 ...	34	51	41	42. 00	....	S.	0	0	0	0	0	W.	4	S. W.	4	S.	5	30. 58	. 71	. 33	. 56
23 ...	36	57	47	46. 66	....	S.	0	H.	1-4	0	0	S.	5	S. E.	12	S. E.	4	30. 23	. 70	. 30	. 34
24 ...	48	65	61	58. 00	....	4-4	....	3-4	1-4	4-4	....	S.	8	S.	13	S.	2	30. 07	. 63	. 53	. 65
25 ...	47	40	39	42. 00	. 90	4-4	....	4-4	....	2-4	....	N. W.	14	N. E.	2	N. E.	8	30. 12	1. 00	. 82	. 90
26 ...	40	43	41	43. 00	....	4-4	....	S.	H.	S.	0	N.	3	N. E.	5	0	0	30. 17	. 64	. 56	. 73
27 ...	34	43	31	36. 00	....	F.	0	0	0	0	0	N.	8	N. E.	5	N. E.	4	30. 43	. 61	. 21	. 38
28 ...	26	....	37	31. 50	....	S.	H.	....	....	S.	H.	N. W.	1	......	..	N. W.	8	30. 47	. 63	....	. 39
29 ...	18	26	23	22. 33	....	0	0	0	2-4	S.	H.	N. W.	12	W.	7	N.	3	30. 67	. 52	. 34	. 46
30 ...	20	34	34	29. 33	....	S.	1-4	S.	1-4	....	....	S.	2	S.	6	S.	14	30. 25	. 70	. 34	. 43

Septembers, Octobers, and Novembers of the years 1872 *and* 1873—Continued.

1873.	Thermometer.				Rain-fall, inches.	Amount of cloudiness.						Wind.						Barometer.	Humidity per cent.		
						7.35 a.m.		4.35 p.m.		11 p. m.		7.35 a.m.		4.35 p m.		11 p. m					
Oct.	7.35 a. m.	4.35 p. m.	11 p. m.	Mean.		Lower.	Upper.	Lower.	Upper.	Lower.	Upper.	Direction.	Velocity.	Direction.	Velocity.	Direction.	Velocity.	Mean.	7.35 a. m.	4.35 p. m.	11 p. m.
1 ...	53	69	63	61. 66	....	0	2-4	3-4	1-4	2-4	2-4	N.	6	N.E.	8	N.	4	30. 10	. 73	. 56	. 77
2 ...	63	73	65	67. 00	....	4-4	....	2-4	2-4	0	0	E.	2	N.E.	2	N.E.	2	30. 09	. 77	. 71	. 94
3 ...	62	....	70	66. 00	....	0	1-4	1-4	1-4	0	2-4	E.	2	S.W.	5	S.	2	30. 03	. 82	. 54	. 79
4 ...	70	76	66	70. 66	....	0	2-4	0	1-4	0	0	S.W.	4	N. W.	10	N.	2	29. 94	. 79	. 64	. 81
5 ...	63	...	63	63. 00	...	S.	2-4	....	....	4-4	....	E.	1	......	..	N.	18	29. 96	. 77	....	. 67
6 ...	46	56	47	49. 66	. 04	2-4	1-4	0	1-4	0	0	N.	12	N.	16	N.	5	30. 16	. 69	. 39	. 62
7 *..	42	59	50	50. 33	....	0	0	S.	0	0	0	N.	7	N.	6	N.	2	30. 13	. 75	. 43	. 64
8 ...	46	69	56	57. 00	....	0	0	S.	1-4	S.	0	E.	4	N. W.	4	N. W.	1	30. 12	. 69	. 42	. 23
9 ...	52	68	60	60. 00	....	S.	0	S.	0	S.	0	0	0	N. W.	5	S.W.	1	30. 12	. 79	. 43	. 76
10 ...	52	76	64	64. 00	....	0	0	S.	2-4	S.	1-4	E.	2	S.W.	6	S.W.	1	30. 11	. 79	. 56	. 83
11 ...	60	77	65	67. 33	....	0	1-4	1-4	2-4	0	0	S.W.	3	N. W.	1	N.	6	30. 13	. 88	. 60	. 78
12 ...	54	66	55	58. 33	....	0	0	S.	1-4	0	0	N. W.	7	N. W.	10	N.	1	30. 20	. 73	. 38	. 62
13 ...	46	69	54	56. 33	...	F.	0	S.	0	S.	0	E.	2	N. W.	3	W.	18	30. 17	. 61	. 35	. 67
14 ...	46	74	61	60. 33	....	S.	0	S.	0	S.	0	E.	1	E.	7	0	0	30. 24	. 69	. 28	. 65
15 ...	57	....	66	61. 50	....	0	1-4	1-4	2-4	1-4	0	S. E.	3	S. E.	8	S.W.	1	30. 28	. 75	. 44	. 73
16 ...	67	80	70	72. 33	....	1-4	2-4	1-4	2-4	0	0	S.	6	S.	5	S. E.	4	30. 26	. 74	. 54	. 70
17 ...	64	79	72	71. 66	....	1-4	2-4	1-4	2-4	4-4	....	S	3	S.W.	10	S. E.	5	30. 05	. 78	. 54	. 66
18 ...	55	57	52	54. 66	1. 76	4-4	....	4-4	....	1-4	0	N. W.	16	N.	12	N.	5	30. 09	. 93	. 75	. 86
19 ...	46	56	47	49. 66	....	0	1-4	0	1-4	1-4	0	N.	6	N. W.	12	N.	3	30. 17	. 76	. 34	. 69
20 ...	44	55	46	48. 33	....	0	0	S.	0	0	0	N W.	4	N. W.	11	0	0	30. 07	. 85	. 33	. 76
21 ...	40	63	56	53. 00	....	S.	0	S.	0	0	0	W.	1	S.W.	6	S.	6	29. 91	. 73	. 42	. 62
22 ...	58	68	57	61. 00	1. 12	1-4	2-4	4-4	....	4-4	...	S.	8	S.	8	N. W.	10	29. 92	. 81	. 84	. 87
23 ...	40	40	36	38. 66	1. 09	4-4	....	1-4	....	0	0	N.	8	N.	10	N.	5	30. 23	. 91	. 82	. 90
24 ...	38	55	47	46. 66	....	4-4	...	S.	2-4	2-4	0	N.	5	N.	5	N.E.	2	30. 29	. 79	. 62	. 77
25 ...	46	52	52	50. 00	....	4-4	....	4-4	....	4-4	....	N.E.	1	N E.	4	E.	3	30. 23	. 92	. 86	. 93
26 ...	57	65	...	61. 00	1. 04	4-4	....	4 4	....	....	....	S.	12	S.W.	5	......	..	29. 85	1. 00	. 94	....
27 ...	38	56	50	48. 00	....	4-4	....	S.	1-4	2-4	0	W.	4	S.W.	11	N. W.	16	29. 97	. 81	. 39	. 58
28 ...	32	41	34	35. 66	....	0	0	0	1-4	0	0	W.	8	W.	8	N. W.	2	30. 37	. 89	. 32	. 79
29 ...	30	48	42	40. 00	....	0	0	S.	1-4	S.	1-4	0	0	S.W.	3	S.	2	30. 35	. 78	. 29	. 50
30 ...	42	58	46	48. 66	....	1-4	2-4	S.	1-4	S.	0	S.W.	8	S.W.	6	S.	2	30. 11	. 57	. 37	. 76
31 ...	36	47	37	40. 00	....	0	0	S.	0	S.	0	N. W.	8	N. W.	6	0	0	30. 34	. 55	. 27	. 71
Nov.																					
1 *..	29	54	47	43. 33	....	0	0	S.	1-4	S.	1-4	E.	3	S. E.	5	S. E.	5	30. 39	. 88	. 26	. 41
2 ...	45	59	47	53. 66	....	1-4	1-4	4-4	....	4-4	....	S.	3	S. E.	2	N. W.	10	30. 24	. 84	. 38	. 84
3 ...	48	58	49	51. 66	. 01	4-4	....	S.	1-4	S.	1-4	N. E.	4	N. E.	6	N. E.	2	30. 24	. 85	. 47	. 63
4 ...	46	53	52	50. 33	. 27	4-4	....	4-4	....	4-4	....	N. E.	1	N. E.	4	N. E.	3	30. 11	. 76	. 93	. 95
5 ...	53	61	59	57. 66	....	4-4	....	4-4	....	4-4	....	N.	3	N. E.	2	N. E.	1	30. 12	. 93	. 76	. 59
6 ...	52	64	55	57. 00	....	4-4	....	3-4	1-4	S.	0	N.	5	N. E.	6	N. E.	1	30. 04	. 72	. 62	. 36
7 ...	50	68	62	60. 00	....	S.	1-4	S.	0	2-4	0	N. W.	..	S. W.	8	N. W.	6	29. 96	. 92	. 51	. 61
8 ...	48	65	53	55. 33	....	S.	0	S.	0	S.	....	N. W.	2	N.	4	S. W	4	30. 18	. 48	. 26	. 60
9 ...	46	69	56	57. 00	....	S.	0	0	0	S.	0	S. W.	2	W.	2	0	0	30. 18	. 77	. 27	. 62
10 ...	48	74	59	60. 33	....	S.	0	S.	0	S.	0	S. W.	1	S. W.	2	S. E.	2	30. 05	. 77	. 31	. 59
11 ...	54	75	60	63. 00	....	S.	1-4	S.	0	4-4	...	S. W.	6	W.	11	N. W.	12	29. [illegible]	. 61	. 22	. 15
12 ...	45	46	40	43. 66	....	4-4	....	4-4	....	0	0	N. W.	8	W.	8	N. W.	1	30. 15	. 60	. 33	. 47
13 ...	33	49	42	41. 33	....	S.	1-4	S.	0	S.	0	W.	1	S.	8	S.	6	30. 16	. 69	. 24	. 42
14 ...	38	57	49	48. 00	....	S.	0	S.	0	0	0	S. W.	1	N. W.	1	S.	6	30. 13	. 62	. 3	. 50
15 ...	50	68	64	60. 00	....	1-4	2-4	S.	1-4	3-4	0	S. W.	6	S. W.	14	S. W.	8	30. 07	. 85	. 55	. 62
16 ...	62	....	....	62. 00	....	4 4	....	....	....	....	....	S. W.	8	......	..	......	..	29. 87	. 77	....	....
17 ...	....	60	55	57. 50	...	....	....	4-4	....	0	H.	......	..	S.	6	S. W.	3	29. 38	....	. 34	. 50
18 ...	47	43	33	41. 00	....	4-4	....	4.4	....	0	0	N. W.	27	N. W.	16	N. W.	20	29. 82	. 34	. 43	. 51
19 ...	26	36	32	31. 33	....	S.	0	S.	H.	0	0	N. W.	4	N. W.	12	W.	1	30. 18	. 63	. 29	. 59
20 ...	29	45	40	38. 00	....	H.	H.	H.	....	H.	0	......	4	S.	8	S.	2	30. 20	1. 00	. 38	. 47
21 ...	45	55	49	49. 66	....	F.	....	4-4	....	4-4	...	S. W.	11	S.	6	S. E.	1	30. 21	. 49	. 62	. 78
22 ...	49	52	49	50. 00	1. 80	4-4	....	4-4	....	4-4	....	S.	2	E.	10	S. E.	7	30. 02	. 92	. 93	. 92
23 ...	53	56	54	54. 33	. 79	4 4	....	4-4	....	4-4	....	S. E.	5	S. W.	1	N.	9	29. 80	. 93	. 93	1. 00
24 ...	46	46	43	45. 00	. 07	4-4	....	1-4	....	0	0	N. W.	2	W.	9	S.W.	9	29. 97	. 92	. 69	. 75
25 ...	45	50	44	46. 33	....	S.	0	S.	0	0	0	W.	9	S. W.	10	N. E.	4	29. 74	. 45	. 38	. 52
26 ...	37	59	51	49. 00	....	S.	0	4-4	0	1-4	....	S. E.	7	S.	10	S.	6	29. 93	. 71	. 43	. 52
27 ...	44	54	43	47. 00	....	S.	0	S.	0	4-4	....	S. W.	1	N.	8	N. E.	10	29. 99	. 75	. 32	. 35
28 ...	...	42	35	38. 50	....	....	....	S.	0	0	1-4	......	..	N. E.	6	N. E.	5	30. 46	....	. 31	. 53
29 ...	34	45	44	41. 00	....	S.	2-4	F.	2-4	0	2-4	N. E	5	N. E.	..	N. E.	3	30. 43	. 61	. 53	. 52
30 ...	38	58	57	51. 00	....	0	2-4	3-4	2-4	2-4	2-4	E.	3	S. E.	3	S. E.	8	30. 37	. 81	. 64	. 81

* Frost during nights of October 6–7, and October 31 and November 1.

The foregoing record of the meteorological conditions observed during the period of the prevalence of the epidemic yellow fever at Memphis and Shreveport in 1873, undoubtedly furnish important facts which are essential to a correct study of the habits and climatic conditions under which this disease exists. Yet we are unable to deduce from them, or to recognize any positive factor or factors that can satisfactorily account for the outbreak and the prevalence, for months, of a specific fever which is very generally believed by physicians to have been imported from New Orleans, where, however, it was not recognized as being epidemic or even extensively prevalent during any part of the summer.

We may here remark, that in the study of this disease as seen in the United States, it is to man himself, and his neglect of the laws governing health and the sanitary conditions of his abode, that we must look for at least some of the exciting causes.

That the disease has limits varying its boundaries during particular seasons, will be readily conceded. One of the limiting causes assigned by most observers, is low temperature. We believe that elevation and a comparatively dry atmosphere may be added.

We ask the question if, from the facts furnished by the different visitations of yellow fever within the United States, elevation is entitled to be credited in any degree with controlling the spread of the disease to interior towns; and if so, does the elevation control it in any other mode than by the effect of a cooler and drier atmosphere than prevails in the low lands in the same vicinity?

Nothing is truer than that man's health is affected by his surroundings. Where a rapid vegetable growth and decay go on, as in the tropical and semi-tropical regions, these localities must always have conditions peculiar to themselves, which influence powerfully both health and disease, although their modes of action may escape our observation.

Humboldt long ago observed that this fever did not exist at high altitudes. A. Keith Johnson, in his valuable *Physical Atlas*, says: "At Xalapa, in Mexico, on the same parallel with Vera Cruz, but 4,330 feet above the sea, yellow fever is unknown." In Jamaica, Maroontown and the Phœnix Park, at an elevation of 2,000 feet, are noted for their heathfulness, while yellow fever rages along the coast, cutting off many hundreds annually. In this island, however, it has been known to exist in a mild form on Stony Hill, elevated 1,360 feet.

Major Tullock, of the British army, remarks that this disease has never been known in any climate at an elevation of 2,500 feet. Mount Desmoulin, near Roseau, in the island of Dominica, 1,500 feet above the sea, is always free from fever, even while it is epidemic at the water-line. The same exemption is observed in the northern and elevated parts of San Domingo, whatever may be the character of the soil.

Dr. Drake, in his work, fixes a limit to this fever in the United States at 400 feet. These figures would seem to be not far out of the way.

This view of the limitation to the spread of yellow fever by elevation has been observed in Cuba and elsewhere.

Fort Smith, in Arkansas, 460 feet above the sea, is the highest point at which this fever has prevailed as an epidemic in the United States. Although Winchester, Va., at an altitude of 700 feet, is placed upon the map, the cases reported to have occurred there in 1802 are not well authenticated. A correspondence with Dr. G. Miller, an old and intelligent physician of that place, was opened to verify the report, but nothing could be learned that would give credibility to the statement. As a faithful chronicler, however, we do not feel at liberty to omit the mention of the disease at this place, with the authority, and the less so since a person *en route* from the South died there shortly after his arrival, in 1871, of what was supposed to be yellow fever. There is much room for doubt, also, as to the correctness of the diagnosis that recognized yellow fever at Gallipolis, in Ohio, in 1796, and in Bald Eagle Valley and Nittany, in Pennsylvania, in 1799.

The cases at Cincinnati in 1871 and 1873 were strangers, reported to have been brought there on boats from New Orleans and Memphis, which renders it probable that they were yellow fever, but contracted before sailing. No new cases occurred at Cincinnati. Those reported at Winchester, Gallipolis, Bald Eagle Valley, Nittany, and other points, not here questioned, may have been only aggravated cases of bilious fevers.

But lest we be misled, and attribute too much influence to elevation, we should not forget the remark of the late Dr. La Roche, who notices how securely a stranger may live in the near vicinity of the epidemic, provided he does not enter the infected district. This fact suggests that the stratum of air, in which the infection peculiar to yellow fever exists, is heavier than air free from the poison, and which therefore seeks the lowest and dampest localities.

If this view should be verified by careful and repeated observations, it would suggest that houses and hospitals, in districts particularly liable to yellow fever, should be built upon columns or supports 10 or 12 feet high, with the space beneath paved and left open for the free circulation of air. The occupants might thus, to some extent, escape breathing the heavier and more noxious stratum of air.

It is clear, as shown by this map, that the disease has, in the United States, never in an epidemic form reached an elevation of 500 feet. If elevation, then, can exempt the inhabitants of a place from such a terribly destructive disease, the profession should, and will, avail itself of this means of protecting life, namely, the removal of all susceptible persons out of the infected district to an elevation above 500 feet if practicable. So far as we could collect facts bearing upon the point in question as to each locality we have done so, and they are given in the following table:

TABLE OF LOCALITIES IN THE UNITED STATES WHERE YELLOW FEVER HAS APPEARED SINCE A. D. 1668.

With their Elevations above the Sea-level; Dates of Commencement and Suspension of the Disease; Mortality; and Authorities for the Statements.

State.	Locality.	Situation.	Elevation, in feet, above sea-level.	DATE OF COMMENCEMENT.		DATE OF SUSPENSION.		Mortality.	Authority.
				Year.	Month.	Year.	Month.		
Alabama	Blakely, Baldwin Co	On Tensaw River	25	1822					Drake, Principal Diseases of Interior Valley, North America, p. 225.
	Cahawba, Dallas Co	On Alabama River	175	1853					E. H. Barton, Report Sanitary Commission of New Orleans, 1857, p. 65.
	Citronelle, Mobile Co	On Mobile and Ohio Railroad	65	1853					J. C. Nott, N. O. M. & S. J., 1854, p. 571.
	Dog River Cotton Factory	Five miles from Mobile	30	1853	Aug. 8				C. Whattleworth, Ch. M. J. & Rev., 1859, p. 479.
	Demopolis, Marengo Co	On Tombigbee River	125	1853					E. D. Fenner, History of Epidemic Yellow Fever, 1853, p. 49.
	Fort Claiborne, Monroe Co	Alabama River	75	1819	July 4	1819	Dec. 1		Harvey E. Brown, (asst. surg., U. S. A.,) Quarantine, on the southern and Gulf coasts, 1872.
	Fort Morgan Island	Mobile Bay	20	1867	Aug. 13				Brown, Quarantine, p. 44.
	Fort Saint Stephens, Washington Co.	Tombigbee River	75	1819	July 4	1819	Dec. 1		Dowler, Yellow Fever of 1853, p. 16.
	Fulton, Sumpter Co	Tombigbee River	120	1853					N. O. Med. and Surg. Jour., vol. 11, 1854, p. 83.
	Hollywood	Tombigbee River	75	1853					E. H. Barton, Report San. Com. of N. O., 1857, p. 65.
	Mobile, Mobile Co	Mobile Bay	20	1705					P. H. Lewis, N. O. M. J., 1845, vol. 1, No. 4, p. 283.
				1765					Drake, Dis. Int. Valley of N. A., p 216.
				1766					P. H. Lewis, N. O. M. J., vol 1, No. 4, 1845, p. 283.
				1819	Aug. 15		Nov. —	274	P. H. Lewis, N. O. M. J., vol 1, No. 4, 1845, p. 284.
				1821					Drake, Dis. Int. Valley of N. A., p. 191.
				1822					Do.
				1824					Do.
				1825	Sept. —				Drake, Dis. Int. Valley of N. A., p. 219.
				1827	Aug. —				Do.
				1828					Drake, Dis. Int. Valley of N. A., p. 191.
				1829	Sept. 14			130	Drake, Dis. Int. Valley of N. A., p. 220.
				1837	Sept. 20	1837	Nov. —	350	Do.
				1838					Drake, Dis. Int. Valley of N. A., p. 191.
				1839	Aug. 11	1839	Oct. 20	650	Drake, and Brown, Quarantine, 1872.
				1841					J. H. Lewis, N. O. M. J., 1844, p. 31.
				1842	Aug. 20			60	Drake, p. 222, and Brown, Quarantine, 1872.
				1843	Aug. 18	1843	Nov. 5	240	Do.
				1844					Drake, Dis. Int. Valley of N. A., p. 191.
				1847				76	Brown, Quarantine, and Fenner's South Med. Reports, vol. 2, p. 304.
				1848				75	Fenner, South Med. Reports, vol. 2, p. 304.

				1849				50	Do.
				1851					Brown, Quarantine, 1872, p. 43.
				1853	July 13	1853	Nov. 1	115	N. O. M. & S. J., 1854, p. 571.
				1854					Ed. Nash., J. M. & S., 1854, p. 345.
				1858					Ed. Va. M. J., 1858, p. 517.
				1867	Aug. 13				Brown, Quarantine, 1872, p. 44.
				1870	Aug. 22	1870	Nov. 19		G. A. Ketchum, Trans. A. M. S., 1871, p. 269.
				1873	Aug. 21	1873	Nov. 29	27	O. L. Crampton, Report Supervising Surgeon, (J. M. Woodworth.) U. S. Marine-Hospital Service, 1873.
	Montgomery, Montgomery Co.	On Alabama River	150	1853	Sept. —		Nov. —	35	R. F. Michel, Charleston Med. Journal and Review, vol. 1, No. 4, 1874, p. 303.
				1854	Sept. —		Nov. —	45	Do.
				1855	Sept. —		Nov. —	30	Do.
				1873	Sept. 4		Nov. 10	102	R. F. Michel, Charleston Med. Journal and Review, vol. 1, No. 4, 1874, p. 289.
	Pollard, Escambia Co		60	1873					J. Jones, B. M. & S. J., 1873, p. 543.
	Selma, Dallas Co	On Alabama River	200	1853	Sept. 17	1853	Nov. 13	32	J. C. Marks, N. O. M. & S. J., 1854, p. 88.
	Spring Hill, Mobile Co	Six miles west of Mobile	50	1853					J. C. Nott, Ch. M. J. & Rev., 1859, p. 476.
Arkansas	Columbia, Chicot Co	On Mississippi River	135	1853	June —				Trans. A. M. A., 1854, p. 526.
	Fort Smith, Sebastian Co	On Arkansas River	460	1823					Dowler, Tableau of Yellow Fever, p. 24.
	Grand Lake, Chicot Co	On Mississippi River	130	1853					D. N. Jones, N. O. M. & S. J., 1853, p. 328.
	Little Rock, Pulaski Co	On Arkansas River	350	1873					Washington Republican, vol. 13, No. 280, p. 1.
	Napoleon, Desha Co	On Mississippi River	142	1853					E. D. Fenner, His. Epi. Yellow Fever, 1853, p. 49.
Connecticut	Chatham, Middlesex Co	On Connecticut River	200	1796	Aug. 29				Miner and Tully on Fevers, p. 357.
	Hartford, Hartford Co	On Connecticut River	60	1798					Brown, Quarantine, p. 8.
				1800					M. Repos., 1800, p. 197.
	Knowles' Landing	On Connecticut River	25	1796	Aug. —			9	N. Y. M. & Ph. J., 1822, p. 153.
	Middletown, Middlesex Co.	On Connecticut River	40	1820	June —				W. Tully, N. Y. M. & Ph. J., 1822, p. 153.
	New Haven, New Haven Co.	On Connecticut River	35	1794					W. Hume, Ch. M. J. & Rev., 1860, p. 24.
				1803					Brown, Quarantine, 1872, p. 9.
				1804					Do.
				1805					Dowler, Tableau of Yellow Fever. p. 13.
				1743					Daily Shreveport Times, vol 2, No. 34, 1873.
				1819					F. Pascalis, M. Repos., 1820, p. 239.
	New London, New London Co.	On Thames River, 3 miles from ocean.	25	1798	Aug. 26		Nov. —	81	Ed. M. Repos., 1799, p. 211.
	Norwalk, Fairfield Co	On Norwalk River	25	1798					J. Gotham, jr., M. Reporter, 1856, p. 563.
	Stamford, Fairfield Co	On Long Island Sound	20	1745					
	Stonington, New London Co.	On Long Island Sound	20	1798					J. Comstock, M. Repos., 1807, p. 23.
Delaware	Christiana, Newcastle Co	On Christiana Creek	20	1798					J. Vaughan, Med. Repos., 1800, p. 372.
	Duck Creek, Newcastle Co.	Near Delaware Bay	20	1798					J. Stephens, Med. Mus., 1809, p. 153.
	Newcastle, Newcastle Co	On Delaware River	25	1798					Do.
	Wilmington, Newcastle Co	On Christiana Creek, 2 miles from Delaware River.	45	1798				250	Do.
				1802				86	Med. Repos., 1803. p. 235.
Florida	Apalachicola, Franklin Co.	On Apalachicola Bay	15	1826					Drake, Diseases Int. Valley. N. A.
	Cedar Keys, Levy Co	Isles of the Ocean	15	1871					Brown, Quarantine, p. 42.
	Gainesville, Alachua Co		160	1871	Aug. —				Do.
	Jacksonville, Duval Co	On Saint John's River	14	1857					F. M. Robertson, Ch. M. J. & Rev., 1858, p. 45.
	Key West, Monroe Co	On an island in the sea	15	1821					B. Ticknor, N. A. M. & S. J., 1827. p. 213.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, &c.—Continued.

State.	Locality.	Situation.	Elevation, in feet, above sea-level.	Date of commencement. Year.	Date of commencement. Month.	Date of suspension. Year.	Date of suspension. Month.	Mortality.	Authority.
				1829					C. C. Dupré, Am. J. of Med. Sci., 1841, p. 380.
				1841	June —			26	Do.
				1853	Aug. —	1854	Aug. —	112	Army Medical Statistics, p. 323.
				1854					Ed. N. O. M. & S. J., 1854, p. 423.
				1862	June 20		Oct. —	71	Ed. M. and S. Reporter, 1862, p. 513.
				1864					E. B. Hunt, Med. Reporter, 1864, p. 340.
				1865					Brown, Quarantine, p. 40.
				1867					Surgeon-General's Office, Circular No. 1, 1868, p. 152.
				1869					Brown, Quarantine, p. 41.
Florida	Milton, Santa Rosa Co	On Blackwater River, near Pensacola Bay.	20	1853					Brown, Quarantine, p. 38.
				1855					Do.
	Pensacola, Escambia Co.	On Pensacola Bay	15	1764					P. S. Townsend, N. Y. M., and Ph. J., 1823, p. 315.
				1765				125	Drake, Dis. Int. Valley of N. A., p. 190.
				1811					Do.
				1822	Aug. 12		Oct. 10	257	Drake, Dis. Int. Valley, of N. A., p. 229.
				1825					Brown, Quarantine, p. 36.
				1827					Med. Statistics, United States Army, p. 58.
				1834	Aug. 23				Drake, Dis. Int. Valley of N. A., p. 232.
				1839					Drake, Dis. Int. Valley of N. A., p. 233.
				1841					Do.
				1842					S. C. Laurason, Maryland M. & S. J., 1843, p. 393.
				1843					Dr. Wedderburn, Report of San. Com., p. 125.
				1844					Do.
				1845					Brown, Quarantine, p. 36.
				1846					Do.
				1847					Dr. Wedderburn, Report of San. Com., p. 125.
				1848					Dr. Wedderburn, Report of San. Com. of N. O., p. 125.
				1853	July 9				E. D. Fenner, His. of Yellow Fever, N. O., 1853, p. 49.
				1854					R. B. S. Hargis, N. O. M. N., 1859, p. 727.
				1858					Do.
				1863	Aug. 25				B. F. Gibbs, A. J. M. Sc., 1866, p. 340.
				1867	July 24			34	M. Reporter, 1868, p. 227.
				1873	Aug. 6			61	R. F. Michel, Charleston M. J. and R., 1874, vol. 1, No. 4, p. 289.
	St. Augustine, St. John's Co.	On Matanzas Sound, two miles from the sea.	10	1807					Brown, Quarantine, p. 32.
				1821	Aug. —			140	J. Gotham, M. Reporter, 1856, p. 564.
				1838					C. C. Dupré, A. J. Med. Sci., 1841, p. 384.
				1839	Aug. 15				Do.

				1841				26	Do.
	Saint Joseph's, Calhoun Co.	On Saint Joseph's Bay, near Gulf of Mexico.	15	1841					B. M. and S. J., 1841, p. 17.
	Suwanee, Columbia Co.	On Suwanee River	50	1836					T. Lawson, Surg. Gen. Report, 1840, p. 308.
	Tampa, Hillsborough Co.	Head of Tampa Bay, forty miles from the Gulf of Mexico.	20	1871					Med. and Surg. Reporter, No. 17, p. 377, vol. 25.
				1839					Drake, Dis. Int. Valley of N. A., p. 191.
				1853	Sept. —				Army Medical Statistics, p. 323.
	Tortugas	Gulf of Mexico	12	1862				4	Circular No. 1, Surgeon General's Office, 1869.
				1867	July 4			38	Brown, Quarantine, p. 46.
	Pensacola	Pensacola Bay		1873	Aug. 14		Nov. 19	62	John M. Woodworth, Supervising Surgeon, U. S. Marine-Hospital Service, Report 1873.
Georgia	Augusta, Richmond Co.	On Savannah River	185	1839					B. M. and S. J., 1839, p. 86.
				1854					Ed. Nash, J. M. and S., 1854, p. 345.
	Bainbridge, Decatur Co.	On Flint River	120	1873					Washington Republican, Oct. 25, 1873, p. 1.
	Saint Mary's, Camden Co.	On Saint Mary's River, nine miles from the sea.	15	1808	Sept. 5		Oct. —	84	J. Seagrove, M. Rep., 1810, p. 135.
	Savannah, Chatham Co.	On Savannah River, eighteen miles from its mouth.	30	1807					Dowler, Tableau of Yellow Fever, p. 14.
				1808					Do.
				1819					A. M. Rec., 1820, p. 212.
				1820					N. A. M. and S. J., 1827, p. 1.
				1827					N. A. Med. & S. J., vol. 10, p. 145.
				1852				19	R. C. Mackall, Ch. M. J. and Rev., 1855, p. 150.
				1853					Do.
				1854	Aug. 5			580	Hume, Charleston M. J., vol. 10, p. 31.
				1858					S. Chaillé, Va., M. J., 1858, p. 491.
Illinois	Cairo	At junction of Ohio and Mississippi Rivers.	322	1873	Sept. 1		Sept. 25	17	H. Wardner, Report Supervising Surgeon U.S. Marine-Hospital Service, 1873.
Louisiana	Louisville	On the Ohio River	450	1873	Sept. 22		Oct. 15	5	P. H. Bailbache, *ibid.*
	Alexandria, Rapides Parish	On Red River	75	1819					G. S. D. Anderson, N. O. M. J., 1859, p. 508.
				1822					Do.
				1827					Do.
				1831					Do.
				1837					Do.
				1839					Do.
				1847					Do.
				1853					Do.
				1854					Do.
				1855	Sept. 13				Do.
	Algiers	On Mississippi River, opposite New Orleans.	10	1847					E. D. Fenner, N. O. M. and S. J., 1848, p. 192.
				1853					P. C. Gaillard, Ch. M. J. and Rev., 1859, p. 481.
				1858					N. O. M. J., 1859, p. 506.
	Ascension	On Mississippi River	25	1823					
	Baton Rouge	On Mississippi River	50	1817					Drake, Dis. Int. Valley of N. A., p. 250.
				1819					Do.
				1822				60	Do.
				1827					Drake, Dis. Int. Valley of N. A., p. 191.
				1829					Do.
				1843	Oct. —				Drake, Dis. Int. Valley of N. A., p. 251.
				1837					Brown, Quarantine, p. 48.
				1847					N. O. M. and S. J., 1848, p. 536.
				1858					S Chaillé, Va., M. J., 1858., p. 491.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, &c.—Continued.

Name.	Locality.	Situation.	Elevation, in feet, above sea-level.	DATE OF COMMENCEMENT.		DATE OF SUSPENSION.		Mortality.	Authority.
				Year.	Month.	Year.	Month.		
Louisiana	Bay of Saint Louis	Mouth of the Mississippi River.	10	1820	Aug. —				A. P. Merrill, N. O. M. and S. J., 1851, p. 1.
				1830					N. O. M. and S. J., 1850, p. 79.
				1853					
	Bayou Sara, West Feliciana Parish.	On Mississippi River	75	1847					E. D. Fenner, N. O. M. and S. J., 1848, p. 19.
				1853					P. C. Gaillard, Ch. M. J. and Rev., 1859, p. 481.
	Burat Settlement, (coast below New Orleans.)	On Mississippi River	10	1854	Sept. 22				Brown, Quarantine.
	Carrollton, Jefferson Parish.	On Mississippi River	15	1847					E. D. Fenner, N. O. M. and S. J., 1848, p. 192.
				1855	May 18			1	D. Warren Brickell, N. O. M. N., 1855, p. 167.
	Centreville, Saint Mary's Parish.	On Teche River 60 miles from the Gulf of Mexico.	20	1853	Sept. 18		Nov. 18		W. B. Wood, N. O. M. N., 1856, p. 483.
				1855	Sept. —		Oct. —	1	Do.
	Clinton, East Feliciana Parish.	32 miles N. of Baton Rouge	85	1853	Sept. 1		Dec. —	75	B. Dowler, Tableau of Yellow Fever, 1853, p. 28.
	Cloutierville, Natchitoches Parish.	On Old River, branch of Red River.	175	1853	Aug. 14		Dec. 14		Brown, Quarantine.
				1854					Do.
	Covington, Saint Tammany Parish.	45 miles north of New Orleans.	25	1847					E. D. Fenner, N. O. M. and S. J., 1848, p. 192.
	Donaldsonville, Ascension Parish.	On Mississippi River	30	1827					
				1839				30	Drake, Dis. Int. Valley of N. A., p. 247.
	Franklin, Saint Mary's Parish.	On Teche River, 65 miles from the Gulf of Mexico.	15	1853	Oct. 19		Nov. 24	2	J. W. Lyman, N. O. M. and S. J., 1854, p. 670.
				1854					W. B. Wood, N. O. M. N., 1856, p. 483.
	Gretna			1858					N. O. M. J., 1859, p. 506.
	Iberville, Iberville Parish.	On Mississippi River	18						
	Jeannerett's, Parish of Saint Mary.		15	1854	Oct. 7				Brown, Quarantine.
	Jesuit's Bend	Settlement on coast below New Orleans.	10	1854	Sept. 12				Brown, Quarantine.
	La Fayette	Near New Orleans	12	1847	June 22				N. O. M. and S. J., 1848, p. 536.
	Lake Providence, Carroll Parish.	On Mississippi River	100	1853					J. L. Ridell, N. O. M. and S. J., 1854, p 813.
	Mandeville, Saint Tammany Parish.	On Lake Pontchartrain	15	1847					E. D. Fenner, N. O. M. and S. J., p. 192.
	McDonoughville			1858					N. O. M. J., 1859, p. 506.
	Natchitoches	On Red River	180	1839					Drake, Dis. Int. Valley of N. A., p. 191.
	New Iberia, Saint Martin's Parish.	Southern part of Louisiana	20	1839					Drake, Dis. Int. Valley of N. A., p. 241.
				1867					Report New Orleans Board of Health, 1872, p. 68.
				1870					Brown, Quarantine, p. 58.

New Orleans	On Mississippi River	10	1769					S. Chaillé, Va. M. J., 1858, p. 498.
			1791					Do.
			1793					Trans. A. M. A., vol. 2, p. 684.
			1794					Stethoscope, vol. 3, No. 11, 1853, p. 665.
			1795					Do.
			1796					Do.
			1797					Do.
			1799					S. Chaillé, Va. M. J., 1858, p. 498.
			1800					Do.
			1801					Do.
			1802					Dowler, Tableau of Yellow Fever, 1853, p. 12.
			1804					Chaillé, Va. M. J., 1858, p. 498.
			1809					Do.
			1811					Do.
			1812					Do.
			1817	June 18		Dec. —	800	S. Chaillé, Va. Med. J., 1858, p. 498.
			1818				115	M. M. Dowler, N. O. M. N., 1859, p. 308.
			1819	July 1			2, 190	S. Chaillé, Va. Med. J., 1858, p. 498.
			1820	July —				Do.
			1822	Sept. 1			239	Trans. A. M. A., 1851, p. 207, and Drake, p. 197.
			1823	Aug. 23			1	Do.
			1824	Aug. 4			108	Do.
			1825	June 23			49	Do.
			1826	May 18			5	Do.
			1827	July 19			109	Do.
			1828	June 18			130	Do.
			1829	May 23			215	Do.
			1830	July 15			117	Do.
			1831	June 9			2	Do.
			1832	Aug. 15			13	Do.
			1833	July 12			210	Do.
			1834	Aug. 28			95	Do.
			1835	Aug. 23			284	Do.
			1836	Aug. 24			5	Do.
			1837	July 24			442	Do.
			1838	Aug. 25			17	Do.
			1839	July 23			452	Do.
			1840	July 25			3	Do.
			1841	July 27			594	Do.
			1842	July 30			211	Do.
			1843	July 5			487	Do.
			1844	July —		Sept. —	148	Do.
			1845				2	Chaillé Va. Med. J., 1856, p. 499.
			1846	Aug. —		Oct. —	160	Do.
			1847	Aug. —		Dec. —	2, 259	Do.
			1848	June —		Nov. —	850	Do.
			1849	Aug. —		Dec. —	737	Do.
			1850	July —		Oct. —	102	Do.
			1851				16	Do.
			1852	July —		Dec. —	415	Do.
			1853	May —		Dec. —	7, 970	Do.
			1854	July —		Dec. —	2, 423	Do.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, &c.—Continued.

c.	Locality.	Situation.	Elevation, in feet, above sea-level.	DATE OF COMMENCEMENT.		DATE OF SUSPENSION.		Mortality.	Authority.
				Year.	Month.	Year.	Month.		
Louisiana	New Orleans	On Mississippi River	10	1855	June —		Dec. —	2,670	Chaillé, Va. Med. J., 1856, p. 499.
				1856	Aug. —		Nov. —	74	S. Chaillé, Va., M. J., 1856, p. 499.
				1857	June —		Dec. —	199	Do.
				1858	June —		Oct. 10	3,889	Ed. Med. Rep., 1858, vol. 1, No. 4, p. 72.
				1862					Fenner, S. J. of M. S., May, 1866.
				1863					Chaillé, p. 8.
				1864					Harris, Sanitary Commission, p. 264.
				1867	June 10		Dec. 22	3,093	Ed. N. O. M. J., 1868, p. 194.
				1870	May 16		Dec. —	587	J. C. Fuget, N. O. Med. & S. J., vol 1, No. 2, 1873.
				1871	Aug. 4		Oct. —	55	Report N. O. Board of Health, 1871.
				1872	Aug. 28		Nov. 30	40	Report N O. Board of Health, 1872, p. 17.
				1873	July 4		Nov. 18	225	Orsamus Smith, Report Supervising Surgeon, U. S. Marine Hospital Service, 1873.
	New Orleans, (small settlement on coast below.)	On Mississippi River	10	1854					D. R. Fox, N. O. M. N., 1855, p. 409.
				1855					Do.
	Opelousas, Saint Landry Parish.	Seven miles from the head of navigation on the Courtableau Bayou.	60	1829					Carpenter, Sketches, p. 26.
				1837	Oct. 20		Nov. —		T. A. Cooke, N. O. M. J., 1846, p. 27; Drake, p. 243.
				1839	Aug. —		Nov. —		Do.
				1842					Do.
				1853					T. A. Cooke, South Med. Rec., vol. 34, 1873, No. 4, p. 199.
				1867					Do.
	Pattersonville, Saint Mary's Parish.	On Teche River	20	1853	Aug. 8		Dec. —	45	J. S. Grant, M. D., Report San. Com., 1853, p. 43.
				1854	Sept. —				W. B. Wood, N. O. M. N., 1856, p. 483.
				1855	Sept. —				Do.
	Plaquemine	On Mississippi River	6	1837					Drake, Dis. Int. Valley, N. A., p. 191.
				1839					Do.
				1847					N. O. M. and S. J., 1848, p. 536.
				1853	Sept. —		Oct. —		J. B. Hacker, N. O. M. and S. J., 1854, p. 668.
				1858					S. Chaillé, Va. M. J., 1858, p. 491.
	Point a la Hache, coast below New Orleans.	On Mississippi River	8	1854	Oct. —				Brown, Quarantine.
	Port Barre			1870					T. A. Cooke, South Med. Rec., vol. 3, 1873, No. 4, p. 193.
	Port Hudson, East Feliciana Parish.	On Mississippi River	75	1839	Oct. 13				Drake Dis. Int. Valley, N. A., p. 252.
				1841					Do.
				1843					Drake, Dis. Int. Valley, N. A., p. 191.
	Saint Francisville West Feliciana Parish	On Mississippi River	80	1811					Drake Dis. Int. Valley N. A., p. 253.
				1817					Do.

				1819					Do.
				1823					Do.
				1827					Do.
				1829	Sept. 22				Do.
				1839	Aug. 28				Do.
				1843	Aug. 28				Do.
				1846				1	Do.
				1848				1	Do.
				1853					B. Dowler, Tableau of Yellow Fever, 1853, p. 26.
	Saint John Baptiste	On Mississippi River	20	1853					C. Delery, N. O. M. and S. J., 1853, p. 405.
	Saint Martinsville, Saint Martin's Parish.	On Teche River	22	1839					Drake, Dis. Int. Valley, N. A., p. 191.
	Saint Mary's Parish, (Judge Baker's plantation.)	On the Gulf of Mexico	15	1854	Sept. —		Oct. —		
	Shreveport, Caddo Parish.	On Red River	220	1853	Sept. —		Dec. —		B. Dowler, Tableau of Yellow Fever, 1853, p. 26.
				1873	Aug. 12		Nov. 10	759	John M. Woodworth, Supervising Surgeon U. S. M-H. S., Report 1873.
	Thibodeaux, La Fourche, interior parish.	On Bayou la Fourche	15	1853				160	B. Dowler, Tableau of Yellow Fever, 1853, p. 26.
				1854	Sept. 12		Oct. —		M. A. McLeod, N. O. M. N., 1855, p. 454.
				1846	Sept. 20		Oct. —		W. A. Booth, N. O. M. and S. J., 1849, p. 65.
	Trenton, Washita Parish.	On Washita River	80	1853					T. P. Richardson, Report San. Com., p. 42.
	Vidalia, Concordia Parish.	On Mississippi River	175	1853	Aug. —				H. B. Shaw, Report San. Com., p. 57.
	Ville Platte, Saint Landry Parish.	On Teche Bayou	50	1870					T. A. Cooke, South Med. Rec., vol. 3, No. 4, p. 197.
	Washington, Saint Landry Parish.	Head of navigation on the Courtableau Bayou.	65	1837					T. A. Cooke, South Med. Rec., vol. 3, No. 4, p. 199.
				1839					Do.
				1852					Do.
				1853	Aug. 15				T. A. Cooke, N. O. M. and S. J., 1854, p. 602.
				1854					T. A. Cooke, South Med. Rec., vol. 3, No. 4, p. 196.
				1867					Do.
Maryland	Baltimore, Baltimore Co	On Patapsco River	60	1794					W. Hume, Ch. M. J. and Rev. 1860, p. 24.
				1795					
				1797	Aug. —		Nov. —		J. H. Griscom, Visitations of Yellow Fever, p. 8.
				1798					W. Hume, Ch. M. J. and Rev. 1860, p. 24.
				1799					Do.
				1800					Do.
				1801					Do.
				1802					M. Reps., 1803, p. 100.
				1805					J. H. Griscom, Visitations of Yellow Fever, p. 13.
				1819	July 21		Oct. 30		D. M. Reese, Yellow Fever, 1819, p. 27.
				1820					H. G. Jameson, A. J. M. C., 1856, p. 372.
				1821					Do.
				1822					Do.
				1868					Brown, Quarantine, p. 14.
	West River, (near Annapolis,) Anne Arundel Co.	Near Chesapeake Bay	15						Stewart, Med. Mus., 1805, p. 362.
Massachusetts	Boston, Suffolk Co	Head of Massachusetts Bay	45	1691					B. Dowler, Tableau of Yellow Fever, 1853, p. 7.
				1693					Ed. N. Y. J. M., 1856, p. 278.
				1795					B. Dowler, Tableau of Yellow Fever, 1853, p. 7.
				1796	Aug. —				J. H. Griscom, N. Y. J. M., 1856, p. 369.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, &c.—Continued.

State.	Locality.	Situation.	Elevation, in feet, above sea-level.	Date of commencement.		Date of suspension.		Mortality.	Authority.
				Year.	Month.	Year.	Month.		
Massachusetts	Boston, Suffolk Co	Head of Massachusetts Bay.	45	1798				200	J. H. Griscom, N. Y. J. M., 1856, p. 369.
				1800					S. Emlen, N. A. M. and S. J., 1828, p. 321.
				1802				60	J. Gotham, Med. Rep., 1856, p. 563.
				1805					J. H. Griscom, Visitations of Yellow Fever, p. 13.
				1819					S. Emlen, N. A. M. and S. J., 1828, p. 321.
				1858					F. E. Oliver, B. M. and S. J., 1858, p. 140.
	Holliston, Middlesex Co	Inland, 25 miles from Boston.	75	1741				15	
	Nantucket, Nantucket Co.	On an island in the ocean	20	1763				259	Med. Rep., 1853, p. 107.
	New Bedford, Bristol Co.	On Buzzard's Bay	25	1800					Brown, Quarantine, p. 9.
				1801					B. Dowler, Tableau of Yellow Fever, 1853, p. 11.
	Newburyport, Essex Co	On Merrimac River	20	1796					J. H. Griscom, N. Y. J. M., 1856, p. 369.
	Salem, Essex Co	On an inlet of the sea	20	1798					J. Gotham, jr., Med. Rep., 1856, p. 563.
Mississippi	Biloxi, Harrison Co	On Biloxi Bay	10	1702					Drake Dis. Int. Valley, N. A., 191.
				1839					Do.
				1847					E. D. Fenner, N. O. M. and S. J., 1848, p. 192.
				1853					J. C. Nott, N. O. M. and S. J., 1854, p. 571.
				1858					S. Chaillé, Va. M. J., 1858, p. 491.
	Brandon, Rankin Co	Inland, 12 miles from Jackson, on branch of Pearl River.	300	1853	Sept. 15				Report Sanitary Commission, 1853, p. 77.
				1854	Sept. 23		Nov. 18		
	Canton, Madison Co	Inland, 25 miles from Jackson, near branch of Pearl River.	320	1855					Trans. A. M. A., 22, p. 201.
	Clifton, Jefferson Co		175	1853	Aug. 28		Oct. —		A. P. Jones, N. O. M. N., 1856, p. 182.
	Cooper's Wells, Hinds Co.	10 miles from Pearl River	275	1855	Aug. 23			13	J. S. Beazley, N. O. M. N., 1856, p. 151.
	Grand Gulf, Claiborne Co	On Mississippi River	200	1853					E. McAllister, N. O. M. and S. J., 1854, p. 675.
	Greenwood, Carroll Co	On Yazoo River	140	1853				9	Trans. A. M. A., 1854, p. 525.
	Jackson, Hinds Co	On Pearl River	275	1853					S. C. Farras, Stethoscope, 1855, p. 584.
				1854					Do.
	Natchez, Adams Co	On Mississippi River	150	1817	Sept. —		Nov. 9	9	Drake, Dis. Int. Valley, N. A., p. 263.
				1819	Sept. —		Dec. —	180	Brown, Quarantine, p. 59.
				1823	Aug. 10		Oct. 18	312	H. Tooley, History Yellow Fever, 1823, p. 25.
				1825	Aug. 20		Nov. 1	150	Drake, Dis. Int. Valley, N. A., p. 269.
				1827					A. P. Merrill, Galv. M. J., 1867, p. 861.
				1829	Sept. 1		Nov. —	90	Drake, Dis. Int. Valley, N. A., p. 191.
				1837	Sept. 8		Nov. 25	280	Do.
				1839	Sept. —		Nov. —	235	Do.
				1844					Cartwright, N. O. M. and S. J., 1848, p. 225.
				1848	June —		Nov. —		C. H. Stine, N. O. M. and S. J., 1849, p. 549.
				1853	July 17				B. Dowler, Tableau of Yellow Fever, 1853, p. 26.

				1855					B. M. and S. J., 1855, p. 275.
				1858					S. Chaillé, Va. M. J., 1858, p. 491.
	Pascagoula, Jackson Co.	On Pascagoula Bay	10	1847					E. D. Fenner, N. O. M. and S. J., 1868, p. 192.
				1853					J. C. Nott, N. O. M. and S. J., 1854, p. 571.
	Pass Christian, Harrison Co.	Near Saint Louis Bay	15	1847					E. D. Fenner, N. O. M. and S. J., 1868, p. 192.
				1853					J. C. Nott, N. O. M. and S. J., 1854, p. 571.
				1855					W. H. Calvert, N. O. M. and S. J., 1856, p. 80.
				1858					S. Chaillé, Va. M. J., 1858, p. 491.
	Petit Gulf Hills, Jefferson Co.	On Mississippi River	200	1853					A. P. Jones, N. O. M. N., 1854, p. 180.
	Port Gibson, Claiborne Co.	On Bayou Pierre	200	1853					E. McAllister, N. O. M. and S. J., 1854, p. 676.
	Rodney, Jefferson Co.	On Mississippi River	175	1829					A. P. Jones, N. O. M. N., 1854, p. 180.
				1843	Sept. 6				C. B. New, West. Lanc, 1844, p. 301.
				1847					A. P. Jones, N. O. M. N., 1854, p. 180.
				1853					Do.
	Shieldsborough, Hancock Co.	On Saint Louis Bay	10	1820	Aug. 20				Drake, Dis. Int. Valley N. A., p. 214.
				1829	Aug. 5				Do.
				1839					Do.
	Vicksburg, Warren Co.	On Mississippi River	175	1839	Sept. —		Oct. —		A. L. C. Magruder, N. O. M. J., 1848, p. 689.
				1841					Ed. West Lancet 1853, p. 575.
				1847					Drake, Dis. Int. Valley N. A., p. 191.
				1858					S. Chaillé, Va. M. J., 1858, p. 49.
				1871					Med. and Surg. Rep., vol. 25, No. 16, p. 354.
	Washington, Adams Co.	Inland, near Natchez	175	1825	Aug. —		Nov. —	52	J. W. Monnott, A. J. M. Sc., 1827, p. 243
	Whitzell's Landing	Twenty miles below Natchez.	135	1817					Drake, Dis. Int. Valley of N. A., p. 190.
	Woodville, Wilkinson Co.	Fifteen miles east of the Mississippi River.	100	1844					J. W. H. West, Lancet, 1844, p. 347.
				1852					P. C. Gaillard, Ch. M. J. and Rev., 1859, p. 480.
				1853	Aug. 9				A. C. Holt, N. O. M. N., 1856, p. 194.
				1855	Sept. —				Do.
				1858					S. Chaillé, Va. M. J., p. 491.
	Yazoo City, Yazoo Co.	On Yazoo River	140	1853	Sept. 1				Trans. A. M. A., 1854, p. 525.
Missouri	Saint Louis, Saint Louis Co.	On Mississippi River	475	1851					Ed. Nash., J. M. and S., 1854, p. 315.
				1855	Aug. 14				W. Webb, N. O. M. N., 1856, p. 52.
	New Design, Saint Louis Co.	Twenty miles below Saint Louis.	420	1797				57	Dr. Watkins, M. Repos., 1801, p. 74.
New Hampshire	Portsmouth, Rockingham Co.	On Piscataqua River, three miles from the ocean.	40	1798	Aug. —		Oct. —	100	Med. Repos., 1799, p. 211.
New Jersey	Bridgeton, Cumberland Co.	On Cohansey Creek, twenty miles from Delaware Bay.	50	1798					J. H. Griscom, Visitations of Yellow Fever, p. 9.
	Gloucester City, Camden Co.	On Delaware River	20	1805					
	Perth Amboy, Middlesex Co.	On Raritan Bay	20	1811				5	J. Gotham, M. Rep., 1856, p. 561.
	Port Elizabeth, Cumberland Co.	On Maurice River	20	1798	Aug. 9		Sept. —	6	G. Lee, M. Repos., 1800, p. 246.
	Woodbury			1798					J. H. Griscom, Visitations of Yellow Fever, p. 9.
New York	Albany	On Hudson River	85	1746	Aug. -			45	J. H. Griscom, Visitations of Yellow Fever, p. 4.
				1798					J. Gotham, jr., M. Rep., 1856, p. 563.
	Bay Ridge, Long Island		20	1856					C. D. Griswold, B. M. and S. J., 1858, p. 214.
	Brooklyn, Kings Co.	A seaport	40	1809	July —		Sept. —	40	Gillespie, Amer. Med. and Philo. Reg., vol. 3, p. 101, Ed. N. Y. J. M., 1856, p. 278.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, *&c.*—Continued.

State.	Locality.	Situation.	Elevation, in feet, above sea-level.	DATE OF COMMENCEMENT.		DATE OF SUSPENSION.		Mortality.	Authority.
				Year	Month.	Year.	Month.		
New York	Brooklyn, Kings Co	A seaport	40	1823					Carpenter, Sketches of Yellow Fever.
				1856	July 14				3d Nat'l Quarantine and Sanitary Convention, p. 41.
	Catskill, Greene Co	On Hudson River	50	1743					
				1794					
				1803	Aug. 10		Sept. 28	8	B. W. Dwight, M. Reps.
	Governor's Island	New York Harbor	25	1856	July 29				3d Nat'l Quarantine and Sanitary Convention, p. 41.
				1870	Sept. —		Oct. 26	49	Report Board of Health, New York, 1870, p. 29.
	Gowanus, Kings Co	On Gowanus Cove, near New York Harbor.	15	1856					Va. M. J., 1856, p. 328.
	Greenfield, Saratoga Co	Far inland	150	1798					J. G. Scott, M. Repos., 1807, p. 291.
	Huntington, Suffolk Co	Huntington Bay	20	1795					Dr. D. Hosack, M. and Philos. Reg., 1813, p. 191.
				1798					Do.
	New York, New York Co	A seaport	35	1668					J. H. Griscom, M. Rep., 1856, p. 561.
				1702			Sept. 30	570	J. H. Griscom, Visitations of Yellow Fever, p. 2.
				1732					J. H. Griscom, Visitations of Yellow Fever, p. 3.
				1741					Ed. N. Y. J. M., 1856, p. 278.
				1742					Do.
				1743				217	J. H. Griscom, Visitations of Yellow Fever, p. 3.
				1745					Do.
				1747					J. H. Griscom, Visitations of Yellow Fever, p. 4.
				1748					Daily Shreveport Times, vol. 2, No. 811, 1873.
				1762					Do.
				1790					W. Hume, Ch. M. J. and Rev., 1860, p. 24.
				1791	Aug. —		Oct. 15		Ed. N. Y. J. M., 1856, p. 278, and Brown, Quarantine, p. 6.
				1792					Ed. N. Y. J. M., 1856, p. 278.
				1793					Do.
				1794					Do.
				1795	July 19			730	Bayley's Account of Epidemic Fever, 1795.
				1796					Ed. N. Y. J. M., 1856, p. 278.
				1797					Do.
				1798	Aug. —		Nov. —	2, 080	Do.
				1799	July —		Nov. —	76	Do.
				1800	Sept. —		Oct. 14	*21	Do.
				1801	Sept. —		Oct. —	*16	Do.
				1802				*2	W. Hume, Ch. M. J. and Rev., 1860, p. 24.
				1803	July 18		Oct. —	6–700	Ed. N. Y. J. M., 1856, p. 278.
				1805	June —		Oct. —	340	J. H. Griscom, M. Rep., 1856, p. 561.
				1806	June -		Nov. —	*0	Ed. N. Y. J. M., p. 278.

				1807				*3	J. H. Griscom, M. Rep., 1856, p. 561
				1808				*1	Ed. N. Y. J. M., 1856, p. 284.
				1809				*2	Do.
				1810				*1	Do.
				1815				*7	Do.
				1816				*0	Do.
				1817				*4	Ed. N. Y. J. M., 1856, p. 281
				1818				*4	Do.
				1819	Aug. —			37	Do.
				1820				*2	Do.
				1821				*16	Do.
				1822	July 10		Nov. 5	230	Do.
				1823				*5	Do.
				1824				*8	Do.
				1825				*1	Do.
				1826				*2	Do.
				1827				*4	Do.
				1828				*0	Do.
				1829				*0	Do.
				1830				*1	Do.
				1832				*1	Do.
				1833				*2	Do.
				1834				*1	Do.
				1835				*2	Do.
				1838				*8	Ed. N. Y. J. M., 1856, p. 281.
				1839				*4	Do.
				1843				*5	Do.
				1844				*2	Do.
				1846				*0	Do.
				1847				*0	Do.
				1848	Aug. 12			*12	Do., and Trans. A. M. A., vol. 7, p. 162.
				1852				*1	Ed. N. Y. J. M., 1856, p. 284.
				1853				*14	Do.
				1854				*20	Do.
				1855				*5	Do.
				1872					B. M. and S. J., vol. 80, No. 23, p. 587.
				1873	May 23		Oct. 30	18	Heber Smith, Report Sup. Surg. U. S. M. H. S., 1873.
	Queensborough, Orange Co			1801					J. G. Scott, M. Repos., 1807, p. 202.
	Red Hook, Dutchess Co.	On Hudson River	30	1856					Va. M. J., 1856, p. 328.
	Stapleton, Staten Island, Richmond Co.	New York Bay	20	1848	Aug. 23				A. B. Whiting, Ch. M. J. and Rev., 1848, p. 613.
	Tompkinsville, Staten Island, Richmond Co.	do	20	1848	Aug. 23				Do.
	West Neck, Suffolk Co		18	1795					Dr. D. Hosack, M. and Philos. Reg., 1813, p. 191.
	West Point, Orange Co	On Hudson River	25	1804					J. G. Scott, M. Repos., 1807, p. 242.
	Yellow Hook		20	1856					Va. M. J. 1856, p. 328.
North Carolina	Beaufort, Carteret Co	Newport River, near the sea.	8	1854					
				1864	Sept. 24		Nov. 17	68	Official Report, U. P. Rice, 1864.
				1871					

* Star indicates the reports of deaths at the Marine Hospital, N. Y. for the respective years. Ed. N. Y. J. M., 1856, p. 284.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, &c.—Continued.

State.	Location.	Situation.	Elevation, in feet, above sea-level.	DATE OF COMMENCEMENT.		DATE OF SUSPENSION.		Mortality.	Authority.
				Year.	Month.	Year.	Month.		
North Carolina	New Berne, Craven Co	On Neuse River	20	1799					M. Repos., 1800, p. 197.
				1864	Sept. —		Nov. —	700	Report Medical Inspector U. S. A., Dec. 31, 1864.
	Smithville, Brunswick Co.	On Cape Fear River, near the ocean.	15	1862					W. T. Wragg, N. Y. M. J., vol. ix, No. 5, 1869, p. 49.
	Washington, Beaufort Co.	On Tar River, 40 miles from Pamlico Sound.	35	1800					M. Repos., 1800, p. 197.
	Wilmington, New Hanover Co.	On Cape Fear River, 34 miles from the sea.	25	1796					J. H. Griscom, N. Y. J. M., p. 369.
				1800					M. Repos., 1800, p. 197.
				1821	Aug. 9				J. Hill, A. M. Rec., 1822, p. 86, and Brown, Quarantine, p. 18.
				1862	Aug. 6		Nov. 17	446	W. T. Wragg, N. Y. J. M., 1869, p. 478, and 1869, p. 225.
Ohio	Cincinnati, Hamilton Co	On Ohio River	550	1871					Med. and Surg. Rep. vol. 25, No. 16, p. 354.
				1873					Health Office Report.
	Gallipolis, Gallia Co.	do	520	1796					A. Ellicott, M. Repos., 1801, p. 74.
Pennsylvania	Bald Eagle Valley, Clinton Co.	Center of Pennsylvania, on West Branch of Susquehanna River.	550	1799					W. Harris, M. Repos., 1801, p. 75.
	Chester, Delaware Co	On Delaware River	25	1798				50	J. H. Griscom, Visitations of Yellow Fever, p. 9.
	Chester County	do		1805					Dowler Tables of Fev., p. 13.
	Kensington, Philadelphia Co.	do	15	1793					La Roche, Yellow Fever, p. 68.
	Lisburn, Cumberland Co	On Yellow Breeches Creek, 9 miles from Harrisburgh.	250	1803	Aug. —				W. Baldwin, Med. Mus., 1805, p. 601.
	Marcus Hook, Delaware Co.	On Delaware River	15	1798					J. Rush, Med. Mus., 1805, p. 62.
	Nittany, Centre Co	Far inland	550	1799					W. Harris, M. Repos., 1860, p. 75.
	Philadelphia, Philadelphia Co.	On Delaware River	35	1695					J. N. Schoolfield, Va. M. J., 1857, p. 358.
				1699	Aug. 1			220	R. La Roche, Ch. M. J. and Rev., 1852, p. 58.
				1732					Daily Shreveport Times, vol. 2, No. 311, 1873.
				1741				250	J. H. Griscom, Visitations of Yellow Fever, p. 3.
				1742					B. Dowler, Tableau of Yellow Fever, p. 3.
				1743					Do.
				1744					R. La Roche, Ch. M. J. and Rev., 1852, p. 458.
				1747					Do.
				1762	Aug. —		Nov. —		J. H. Griscom, Visitations of Yellow Fever, p. 5.
				1791					
				1793	Aug. 15		Dec. —	4,041	Carey, Account of the Malignant Fever, p. 116.

				1794	......	......	......	......	La Roche, Board of Health Rep., Phila., 1870, p. 53.
				1796	......	......	......	......	J.H. Griscom, N. Y. J. M., 1856, p. 369, and 1856, p. 368.
				1797	Aug. 1	......	Oct. 15	1, 300	Rush, Epidemic of 1797.
				1798	Aug. 1	......	Nov. 1	3, 500	Do.
				1799	Jul —	......	Nov. —	1, 000	R. La Roche, Ch. M. J. and Rev., 1852, p. 458.
				1800	......	......	......	......	W. Hume, Ch. M. J. and Rev., 1860, p. 24.
				1801	......	......	......	......	Do.
				1802	......	......	......	307	Do.
				1803	......	......	......	195	Do.
				1805	......	......	......	3-400	Do.
				1807	......	......	......	3	B. Dowler, Tableau of Yellow Fever, 1853, p. 14.
				1809	......	......	......	......	Do.
				1810	......	......	......	3	Do.
				1811	......	......	......	5	Do.
				1813	......	......	......	6	Do.
				1814	......	......	......	7	Do.
				1815	......	......	......	2	Do.
				1816	......	......	......	2	Do.
				1819	......	......	......	13	S. Emlen, N. A. M. and S. J., 1828, p. 321.
				1820	July 24	......	......	83	S. Jackson, A. M. Rec., 1821, p. 689.
				1853	July 19	......	Oct. —	128	W. Jewell, N. Y. J. M., 1854, pp. 149, 246, and Brown, Quarantine, p. 40.
				1854	......	......	......	......	Ed. Nash. J. M. and Surg., 1851, p. 345.
				1870	June 29	......	......	18	La Roche, Yellow Fev., 1870, pp. 20, 26.
	Southwark, Philadelphia Co	On Delaware River	20	1793	......	......	......	......	La Roche, Yellow Fever, p. 68.
Rhode Island	Block Island	In Long Island Sound	20	1801	June —	......	Dec. —	......	Aaron C. Willey, M. Repos., 1803, p. 123.
	Bristol, Bristol Co	On Narragansett Bay	20	1795	......	......	......	......	W. Hume, Ch. M. J. and Rev. 1860, p. 24.
				1796	......	......	......	......	Do.
				1797	......	......	......	......	Do.
	Newport, Newport Co	A port on Narragansett Bay	20	1806	......	......	......	......	
	Providence, Providence Co.	do	35	1794	......	......	......	......	B. Dowler, Tableau of Yellow Fever, 1853, p. 7.
				1795	......	......	......	45	W. Hume, Ch. M. J. and Rev., 1860, p. 24.
				1797	Aug. 13	......	Aug. —	45	W. Hume, Ch. M. J. and Rev., 1860, p. 324.
				1800	......	......	......	......	W. Hume, Ch. M. J. and Rev., 1860, p. 24.
				1805	July 19	......	Aug. —	......	P. Bowen, Yellow Fever in Providence in 1805.
	Westerly, Washington Co.	On Pawcatuck River	25	1798	......	......	......	......	J. Comstock, M. Repts., 1807, p. 23.
				1805	......	......	......	......	Do.
South Carolina	Charleston, Charleston district.	A seaport	10	1699	......	......	......	......	Simons' Trans. S. C. Med. Ass'n, 1851, p. 37.
				1703	......	......	......	......	Do.
				1728	......	......	......	......	Do.
				1732	May —	......	Sep. or Oct	[a]8-12	Simons' Trans. S. C. Med. Ass'n, 1851, p. 37, and Trans. A. M. A., vol. 23, p. 291.
				1734	......	......	......	......	T. Harris, Phil. M. and P. J., No. 5, p. 21.
				1739	......	......	......	......	W. Hume, Ch. M. J. and Rev., 1851, p. 145.
				1745	......	......	......	......	Do.
				1748	......	......	......	......	Do.
				1753	......	......	......	......	Do.
				1755	......	......	......	......	Do.
				1761	......	......	......	......	T. Harris, Phil. M. and Ph. J., 1805, p. 21.
				1762	......	......	......	......	Dawson & DeSaussure, Census of Charleston.

[a] Died daily.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, &c.—Continued.

State.	Locality.	Situation.	Elevation, in feet, above sea-level.	DATE OF COMMENCEMENT.		DATE OF SUSPENSION.		Mortality.	Authority.
				Year.	Month.	Year.	Month.		
South Carolina...	Charleston, Charleston district.	A seaport.	10	1768					M. M. Dowler, N. O. M. J., 1859, p. 305.
				1770					T. Harris, Phil. M. and Ph. J., 1805, p. 21.
				1792					W. Hume, Ch. M. J. and Rev., 1852, p. 145., and Simons' Trans. Med. Ass'n S. C., 1851, p. 38.
				1794					Do.
				1795					Do.
				1796					Do.
				1797					Do.
				1798					T. Y. Simons, Ch. M. J., and Rev., 1851, p. 779.
				1799				239	W. Hume, Ch. M. J., and Rev., 1854, p. 145, and Simons' Trans. Med. Soc. S. C., 1851, p. 38.
				1800				184	Do.
				1802				96	Do.
				1803					Simons' Trans. S. C. Med. Ass'n, 1851, p. 37.
				1804				148	Do.
				1805					Do.
				1807				162	Simons' Trans. S. C. Med. Ass'n, p. 38.
				1812					W. Hume, Ch. M. J. and Rev., 1854, p. 145.
				1817	July —		Nov. —	272	Dowler, N. O. M. J., 1859, p. 597.
				1819	Aug. —		Oct. —	177	Do.
				1822	June —		Aug. —	2	Do.
				1824	Aug. —		Nov. —	235	Do.
				1825	Aug. —		Sept. —	2	Do.
				1827	Aug. —		Nov. —	64	Do.
				1828	Aug. —		Sept. —	26	Do.
				1830	Sept. —		Nov. —	30	Do.
				1834	Aug. —		Oct. —	49	Do.
				1835	Aug. —		Sept. —	25	Do.
				1838	Aug. —		Nov. —	351	Do.
				1839	June —		Oct. —	134	Do.
				1840	Aug. —		Oct. —	22	Do.
				*1841					Simons' Trans. S. C. Med. Ass'n, p. 59.
				1843			Nov. —	1	Dowler. N. O. M. J., p. 597.
				1849	Aug. —		Nov. —	125	Do.
				1852	Aug. —		Nov. —	310	Do.
				1854	Aug. —		Nov. —	627	Do.
				1856	Aug. —		Nov. —	211	Do.
				1857	Sept —		Nov. —	13	Do.

				1858	July —	......	Dec. —	717	Do.
				1862	....	......	....	......	Brown, Quarantine, p. 29.
				1864	July 27	......	....	......	Trans. A. M. A., vol. 23, p. 292.
			10	1871	July 19	......	Nov. —	213	Simons' Trans. A. M. A., vol. 23, p. 293.
	Beaufort, Beaufort district.	On an arm of the sea........	10	1871	Aug. 6	......	Nov. 21	7	Trans. A. M. A., vol. 23, p. 331.
	Columbia, Richland dist...	On Congaree River..........	175	1854	....	......	....	......	Ed. Nash. J. M. and S., 1854, p. 345.
	Fort Moultrie.............	In Charleston Harbor........	15	1852	....	......	....	......	M. M. Dowler, N. O. M. J., 1854, p. 305.
				1858	Aug. 15	......	....	......	Ch. M. J. and Rev., 1858, p. 844.
	Georgetown, Georgetown district.	On Winyaw Bay............	10	1854	Aug. 20	......	Oct. 28	......	W. C. Miller, Ch. M. J. and Rev., 1856, p. 19.
	Hilton Head..............	....	10	1862	Sept. 8	......	Oct. 25	......	Brown, Quarantine, p. 30.
	Mount Pleasant, Charleston Co.	On Winyaw Bay............	10	1817	....	......	....	......	R. A. Kinloch, Ch. M. J. and Rev., 1858, **p.** 793.
				1848	....	......	....	......	Do.
				1852	....	......	....	......	Do.
				1854	....	......	....	......	Do.
				1856	....	......	....	......	Do.
				1857	....	......	....	......	Do.
Tennessee.......	Memphis, Shelby Co......	On Mississippi River.......	260	1853	....	......	....	......	W. J. Tuck, N. O. M. and S. J., 1854, p. 662.
				1855	....	......	....	......	A. P. Merrill, Galv. M. J., 1867, p. 861.
				1866	....	......	....	......	Ed. Amer. Prac., vol. 8, 1873, p. 319.
				1873	Sept. 14	......	Nov. 9	1244	Memphis Board of Health. See G. B. Thornton, in Report of Supervising Surgeon U. S. Mar. Hos Service, 1873.
Texas............	Alleyton, Colorado Co....	On Colorado River..........	250	1867	Sept. 4	......	Dec. —	45	Trans. A. M. A., vol. 19, p. 289.
	Anderson, Grimes Co....	140 miles east by north of Austin, near Brazos River.	200	1867	....	......	....	......	Trans. A. M. A., vol. 19, p. 275.
	Austin...................	....	......	1867	....	......	....	......	Galv. M. J., 1867, vol. 2, No. 10, p. 930.
	Bastrop, Bastrop Co......	On Colorado River..........	260	1867	....	......	....	......	Trans. A. M. A., vol. 19, p. 275.
	Beaumont, Jefferson Co...	On Neches River...........	50	1863	....	......	....	......	Brown, Quarantine, p. 71.
	Belleville, Austin Co......	110 miles east-southeast of Austin, near Brazos River.	180	1855	....	......	....	1	J. Stephens, N. O. M. and S. J., 1856, p. 601.
	Brazoria, Brazoria Co....	Near the Gulf of Mexico...	20	1859	....	......	....	......	B. Dowler, N. O. M. J., 1860, p. 443.
	Brenham, Washington Co.	20 miles from Brazos River..	300	1867	Aug. 11	......	Oct. 31	120	Trans. A. M. A., vol. 19, p. 275.
	Brownsville, Cameron Co..	On Rio Grande River......	25	1853	Sept. 23	......	Dec. 23	50	Army Medical Statistics, p. 353.
				1858	Aug. —	......	Nov. —	41	S. Chaillé, N. O. M. and S. J., 1858, p. 811.
				1862	....	......	....	......	Galv. M. J., 1866, p. 170.
	Calvert, Robertson Co....	Between the Brazos and Navasota River.	325	1867	Oct. 12	1868	Jan. 10	250	
				1873	....	......	....	......	Newspapers.
	Chapel Hill, Washington Co.	Near Brazos River.........	200	1867	Aug. 6	......	Dec. —	123	Trans. A. M. A., vol. 19, p. 275.
	Columbus, Colorado Co...	On Colorado River.........	250	1873	....	......	....	......	Newspapers.
	Columbia, Brazoria Co...	On Brazos River...........	25	1833	....	......	....	132	Galv. M. J., 1866, p. 163.
	Corsicana, Navarre Co....	180 miles north northeast of Austin, near the Pecan River.	395	1873	....	......	....	......	Newspapers.
	Corpus Christi, Nueces Co	On Corpus Christi Bay......	15	1862	....	......	....	......	Galv. M. J., 1866, p. 170.
				1867	Aug. —	......	....	......	Brown, Quarantine, p. 70.
				1873	....	......	....	......	Newspapers.

* Not within the incorporated limits of Charleston, South Carolina.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, &c.—Continued

State.	Locality.	Situation.	Elevation, in feet, above sea-level.	Date of commencement.		Date of suspension.		Mortality.	Authority.
				Year.	Month.	Year.	Month.		
Texas	Cypress City, Harris Co.	Near Cypress Bayou, a branch of the San Jacinto River.	60	1853					Galv. M. J., 1866, p. 169.
	Danville, Montgomery Co.	On branch of the San Jacinto River.	160	1859					B. Dowler, N. O. M. J., 1860, p. 443.
				1867					Trans. A. M. A., vol. 19, p. 4[illegible]6.
	Edinburg, Cameron Co.	On Rio Grande River	100	1859	July —			13	B. Dowler, N. O. M. J., 1860, p. 443
	Goliad, Goliad Co	On San Antonio River	50	1867	July 12			23	Trans. A. M. A., vol. 19, p. 284.
	Galveston, Galveston Co	On an island in Galveston Bay.	5	1839	Sept. 30		Oct. 11	250	Galv. M. J., 1867, p. 856.
				1844	July 5			100	Galv. M. J., 1867, p. 838.
				1847	Oct. 1		Nov. 25	200	Do.
				1853	Aug. 16		Nov. 28	536	Ed. Med. and Surg. Rep., vol. 17, 1867, No. 14, p. 297.
				1854	Aug. 9		Nov. 5	404	Do.
				1858	Aug. 27		Nov. 14	344	Do.
				1859	Sept. 17		Nov. 30	182	Do.
				1864	Sept. 1		Nov. 20	259	Do.
				1866					Galv. M. J., 1866, p. 338.
				1867	June 26		Nov. —	1,150	S. M. Welch, Galv. M. J., vol. 1, No. 2, p. 83.
	isburg, Harris Co.	On Buffalo Bayou.	55	1867					Trans. A. M. A., vol. 19, p. 289.
	Hempstead, Austin Co.	50 miles from Houston, and near Brazos River.	200	1867	Aug. 9		Nov. 26	151	Trans. A. M. A., vol. 19, p. 275.
	Hockley, Harris Co	Near Buffalo Bayou.	50	1853					Galv. M. J., 1866, p. 169.
	Houston, Harris Co	On Buffalo Bayou.	50	1839					W. McCraven, N. O. M. N., 1860, p. 105.
				1844					Do.
				1847					Do.
				1848					Do.
				1853					Do.
				1854					Do.
				1858					Do.
				1859					Do.
				1864					Galv. M. J., 1866, p. 163.
				1870			Oct. —	1	Galv. M. J., 1870. p. 296.
	Huntsville, Walker Co.	200 miles east by north of Austin.	200	1867	Aug. 9		Oct. 19	130	Trans. A. M. A., vol. 19, p. 275.
	Independence, Washington Co.	60 miles east of Austin, near Brazos River.	250	1867					Trans. A. M. A., vol. 19, p. 289.

	Indianola, Calhoun Co.	On Matagorda Bay	10	1852	Sept. —				Indianola Bulletin, Dec. 16, 1870.
				1853					Brown, Quarantine, p. 68.
				1858					Heard, Rep. Epid. of Texas, p. 15.
				1859					B. Dowler, N. O. M. J., 1860, p. 443.
				1862					Brown, Quarantine, p. 68.
				1867	June 20			80	Trans. A. M. A., vol. 19, p. 268.
	La Grange, Fayette Co.	On Colorado River	450	1867	Aug. —		Nov. —	200	Trans. A. M. A., vol. 19, p. 275.
	Liberty, Liberty Co	On Trinity River	40	1867					Trans. A. M. A., vol. 19, p. 289.
	Liverpool, Brazoria Co.	36 miles west of Galveston, near Chocolate River.	25	1853	Aug. —			4	Galv. M. J., 1866, p. 169.
	Matagorda, Matagorda Co	On Matagorda Bay	15	1862				120	Galv. M. J., 1866, p. 170.
				1863					Trans. A. M. A., vol. 19, p. 266.
	Millican, Brazos Co.	Near Brazos River	300	1864					Galv. M. J., 1866, p. 175.
				1867	Oct. 15		Nov. 12	4	Trans. A. M. A., vol. 19, p. 275.
	Navasota, Grimes Co	On the Navasota River	200	1867	Aug. 12		Dec. —	154	A. R. Kilpatrick, Galv. M. J., 1868, vol. 1, No.3, p.182.
	Oldtown, near Indianola		20	1867	Oct. 13				Trans. A. M. A., vol. 19, p. 268.
	Port Lavacca, Calhoun Co	On Lavacca Bay	15	1867	July 3		Oct. 29		Trans. A. M. A., vol. 19, p. 283.
	Richmond, Fort Bend Co.	On Brazos River	125	1853					Galv. M. J., 1866, p. 163.
				1859					B. Dowler, N. O. M. J., 1860, p. 443.
	Rio Grande City, Starr Co	On Rio Grande River	200	1867				150	Heard, Epidemic diseases of Texas.
	Sabine City, Jefferson Co	On Sabine Lake	10	1863	July —		Oct. 1	14	Galv. M. J., 1866, p. 170.
	Saluria, Calhoun Co.	On Matagorda Island	10	1853					
	Sugarland, Fort Bend Co.	On Brazos River	100	1859					B. Dowler, N. O. M. J., 1860, p. 443.
	Victoria, Victoria Co.	On Guadaloupe River	50	1867	Aug. 1		Dec. 25	260	Trans. A. M. A., vol. 19, p. 284.
Virginia	Alexandria, Alexandria Co.	On Potomac River	25	1803	Aug. 1			200	Dr. Dick, Med. Repos., 1804, p. 190.
	City Point, Prince George Co.	On James River	15	1798					Currie, Memoirs of Yellow Fever, p. 109.
	Gosport, Norfolk Co.	On Elizabeth River	20	1855					J. A. Manning, Va. M. J., 1857, p. 288.
	Hampton Roads	Harbor		1869					Brown, Quarantine, p. 18.
	Norfolk, Norfolk Co.	On Elizabeth River	20	1747					Daily Shreveport Times, vol. 2, No. 311, 1873.
				1794					J. H. Griscom, N. Y. J. M., 1856, p. 369.
				1795					Do.
				1796					Va., M. J., 1857, p. 95.
				1797					J. H. Griscom, N. Y. J. M., 1866, p. 369.
				1798					Va. M. J., 1857, p. 95.
				1799					Do.
				1800	July 26		Oct. 30	250	Med. Repos., vol. 4, p. 329.
				1801					Va. M. J., 1857, p. 95.
				1802					Do.
				1803					Do.
				1804					Do.
				1805					Do.
				1821	Aug. 1				Va. M. J., 1857, p. 95.
				1826	Sept. 1				Committee's Report, p. 14.
				1852	Aug. 7				Va. M. J., 1857, p. 95.
				1854	Oct. —		Nov. 2	3	Do.
				1855	June 30		Oct. —	1,807	Portsmouth Relief Association Report.
	Petersburg, Dinwiddie Co	On Appomattox River	20	1798					Currie, Memoirs Yellow Fever, p. 109.
	Portsmouth, Norfolk Co.	On Elizabeth River	20	1852					Portsmouth Relief Association Report, p. 91.
				1854					Do.
				1855	Aug. 1		Oct. —	1,000	Portsmouth Relief Association Report, p. 77.

Table of Localities in the United States where Yellow Fever has appeared since A. D. 1668, &c.—Continued.

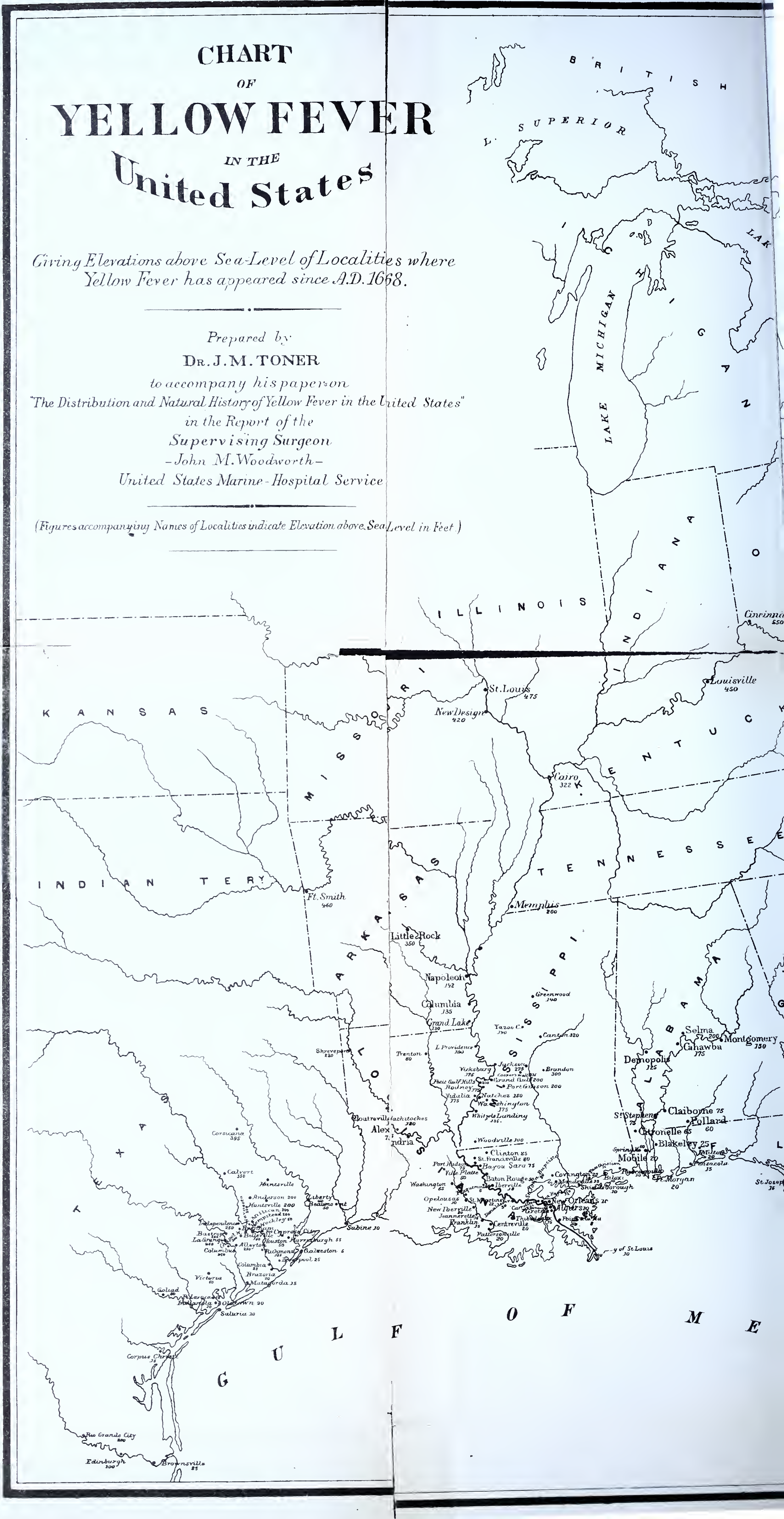
State.	Locality.	Situation.	Elevation in feet, above sea-level.	DATE OF COMMENCEMENT.		DATE OF SUSPENSION.		Mortality.	Authority.
				Year.	Month.	Year.	Month.		
Virginia	Richmond, Henrico Co	On James River	50	1806					M. Repos., 1807, p. 215.
	Scott's Creek, near Portsmouth.		15	1855	June 29				J. A. Manning, Va. M. J., 1857, p. 29.
	Winchester, Frederick Co	20 miles from the Blue Ridge Mountains.	700	1804	July —				R. Dunbar, Med. Repos., 1805, p. 252.

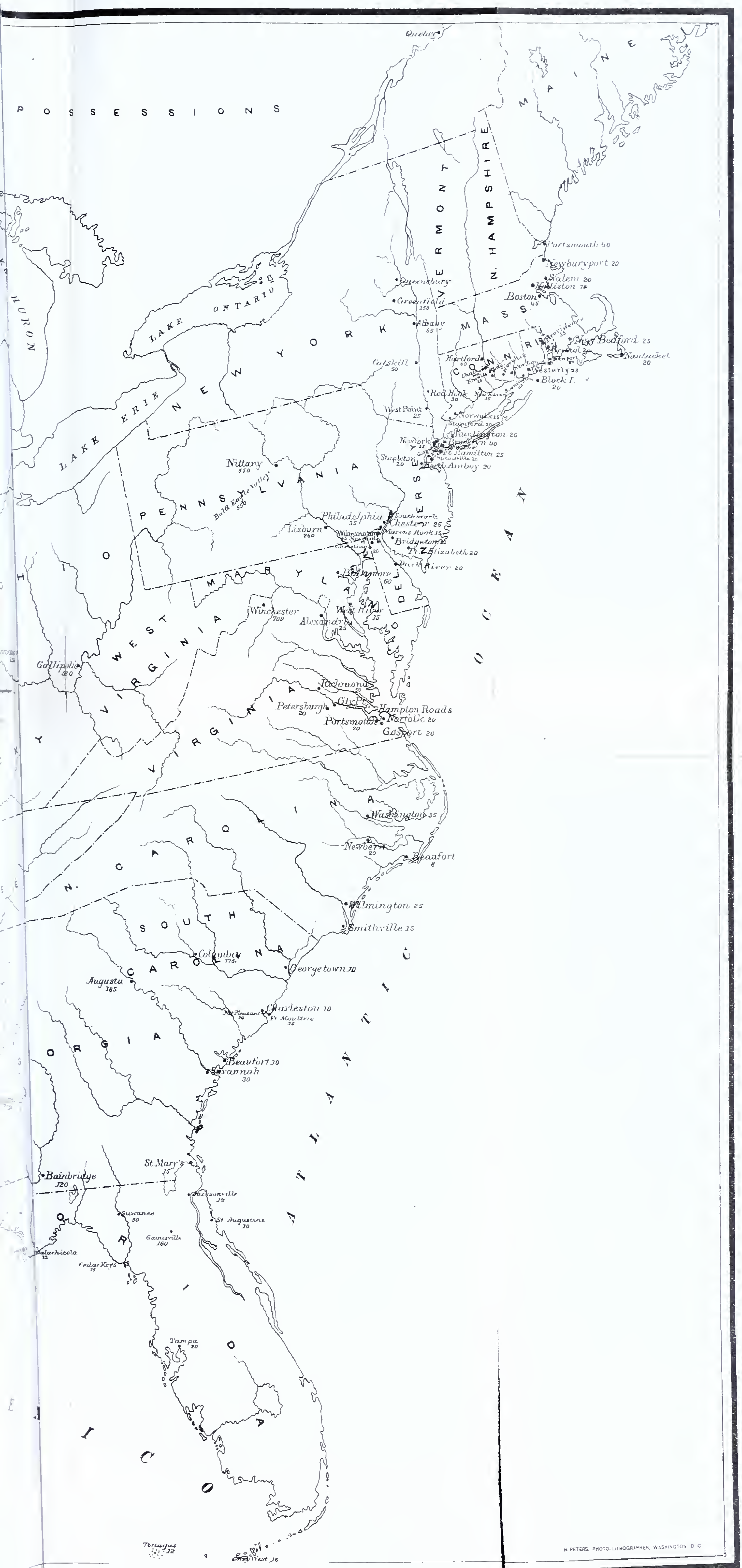
CHART
OF
YELLOW FEVER
IN THE
United States

Giving Elevations above Sea-Level of Localities where Yellow Fever has appeared since A.D. 1668.

Prepared by
DR. J. M. TONER
to accompany his paper on
"The Distribution and Natural History of Yellow Fever in the United States"
in the Report of the
Supervising Surgeon
-John M. Woodworth-
United States Marine-Hospital Service

(Figures accompanying Names of Localities indicate Elevation above Sea Level in Feet.)





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